

APPRAISAL

ROYCE AREA 117

LANDS IN SOUTHWESTERN MICHIGAN AND NORTHERN INDIANA

Filed by the

OTTAWA, CHIPPEWA, AND POTAWATOMI NATIONS OF INDIANS

Before the Indian Claims Commission

Cases Nos. 146, 15-M, 29-K, 13-Q, 13-M, and 40-K, Consolidated

Valued as of March 25, 1822

Prepared by

PAUL STARRETT, M. A. I.

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Starrett, Paul.
Appraisal report, Royce area
117, Michigan 1, Indiana

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APPRAISAL REPORT

ROYCE AREA 117, MICHIGAN 1, INDIANA

Ceded to the United States
by the Treaty of August 29, 1821

by the
OTTAWA, CHIPPEWA, AND POTAWATOMI NATIONS OF INDIANS

Valuation Date—March 25, 1822

Before the Indian Claims Commission
Cases Nos. 146, 15-M, 29-K, 18-Q, 13-M, and 40-K, Consolidated

Prepared for
UNITED STATES DEPARTMENT OF JUSTICE

By
PAUL STARRETT, M. A. I.

DECEMBER 1, 1960



Duplicate Copy

ANNUAL REPORT

OF THE

COMMISSIONER

OF THE LAND OFFICE

IN THE YEAR 1881

BY

JOHN W. HARRIS, COMMISSIONER

ALBANY: J. B. KNEELAND, 1881.

PRINTED BY

J. B. KNEELAND, ALBANY, N. Y.

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ORIENTATION MAP
LOCATION OF ROYCE AREA 117, MICHIGAN 1, INDIANA



KLEIN & KUHN

REAL ESTATE MANAGEMENT

GUARANTY BUILDING

INDIANAPOLIS 4, IND.

December 1, 1960

Mr. Perry W. Morton
Assistant Attorney General
Lands Division
U. S. Department of Justice
Washington 25, D. C.

Re: The Appraisal of Lands in Michigan
and Indiana designated as Royce
Area 117, Michigan 1, Indiana

Dear Sir:

In accordance with your letter of July 20, 1956, I have appraised the fair market value as of March 25, 1822, of the lands, designated in this report as Royce Area 117, as described in the accompanying report.

In my opinion the fair market value as defined herein as a unit as of March 25, 1822, was EIGHT HUNDRED TWENTY-TWO THOUSAND EIGHT HUNDRED SIXTY-SIX DOLLARS (\$822,866.00).

The historical data, maps, charts, and other information upon which my conclusion is based are contained in the following report, and this report is invalid if this letter or any part of the report is separated from the whole.

Very sincerely yours,



Paul Starrett, M.A.I.

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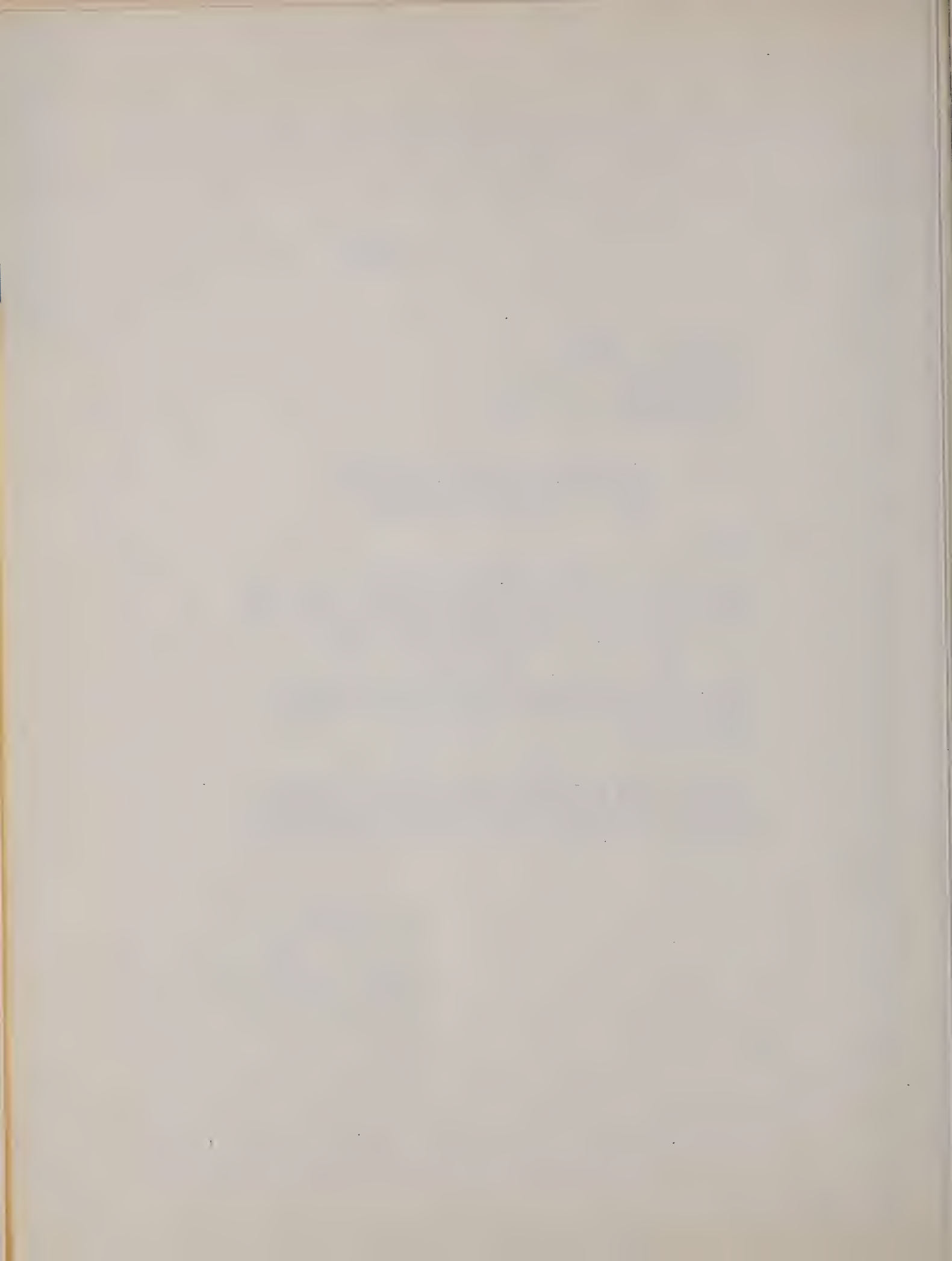


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CERTIFICATE

I hereby certify that I have made a careful study and analysis of the data contained herein and elsewhere to enable me to formulate a sound and logical opinion of the value of the lands herein appraised. In addition, I have completed a general inspection of the area and contiguous areas in order to familiarize myself with the general characteristics of the land and the topography.

I further certify that my employment as appraiser is in no way contingent upon the value reported, that to the best of my knowledge and belief the statements and opinions contained in this appraisal are true and correct, and that this appraisal has been made in conformity with the Rules of Professional Conduct of the American Institute of Real Estate Appraisers of the National Association of Real Estate Boards.

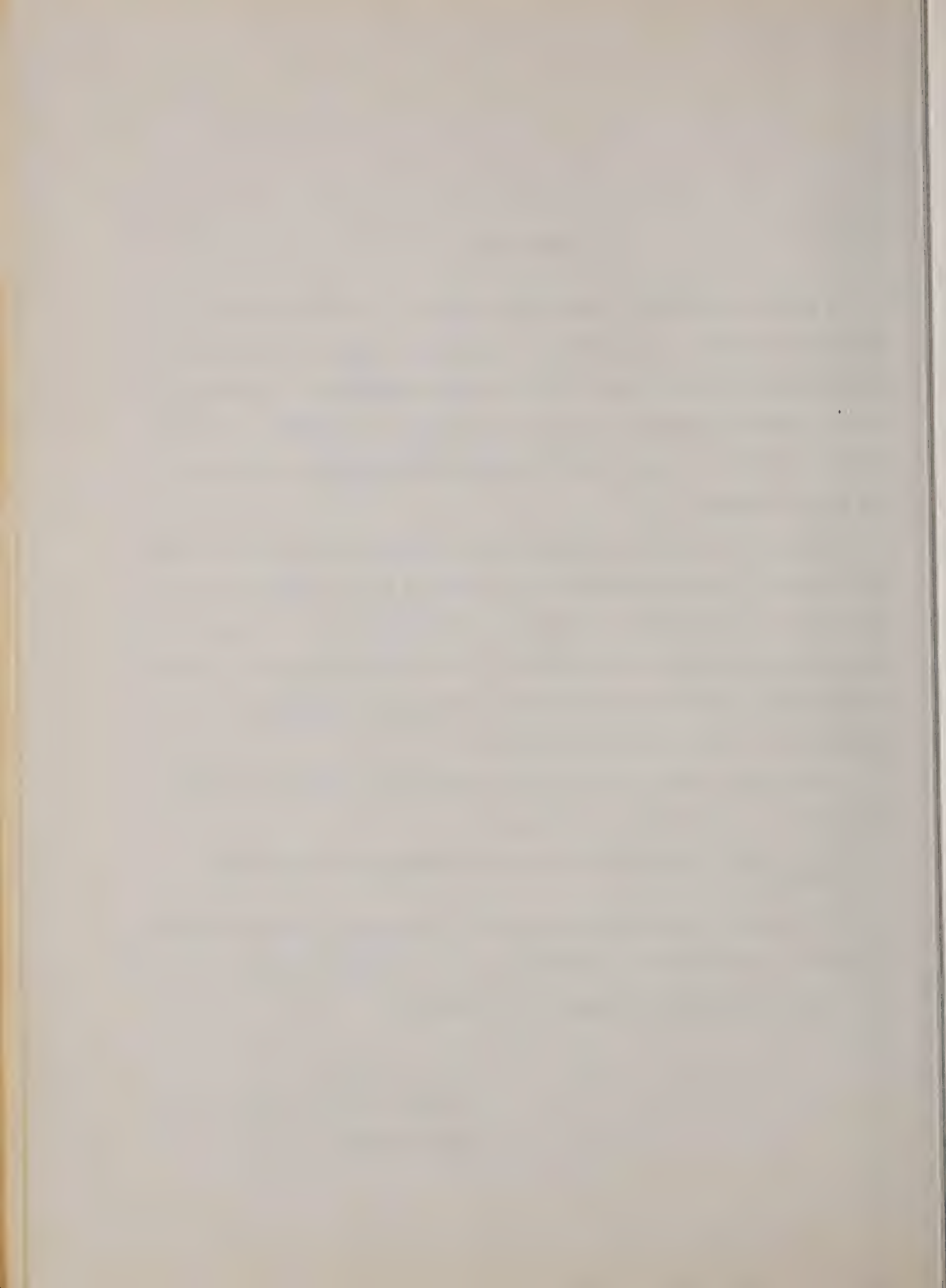
In my opinion the fair market value as defined herein of the above-described land as of March 25, 1822, was:

EIGHT HUNDRED TWENTY-TWO THOUSAND EIGHT HUNDRED SIXTY-SIX DOLLARS
(\$822,866.00).

This report consists of the appraisal, containing 247 pages, and pages i through ix, which must be considered as a unit. Both report and certificate are invalid if any part is separated from the whole.

A handwritten signature in cursive script, reading "Paul Starrett", written in dark ink. The signature is fluid and elegant, with a large initial "P".

PAUL STARRETT, M.A.I.



SECTION I

PURPOSE OF APPRAISAL

On August 29, 1821, certain Indian tribes or bands, denominated the Ottawa, Chippewa, and Potawatomi Nations of Indians, by treaty at Chicago, then known as Fort Dearborn, signed a treaty by which they ceded to the United States of America their interests in certain lands located in southwestern Michigan and northwestern Indiana, more particularly described herein. As a result of this cession these Indian tribes or bands have petitioned for redress against the United States of America before the Indian Claims Commission in Consolidated Dockets Nos. 146, et al., covering a portion of these lands. On June 30, 1958, the Indian Claims Commission found in these actions that the Indian title to the lands rested only in the Grand River Bands of Ottawa Indians and the St. Joseph River Bands of Potawatomi Indians.

The purpose of this appraisal is to determine the fair market value of subject property as of March 25, 1822, the date when the treaty was ratified by the United States Government. Fair market value is defined briefly as the price which an informed buyer, willing and able to buy, will pay and which an informed seller, willing but not forced to sell, will accept, assuming that the property has been properly exposed for sale, allowing sufficient time for potential purchasers to become properly acquainted with all of its features. Such price is assumed to be arrived at after sufficient negotiations are carried on without duress so that each party has had sufficient opportunity to determine that its interests were properly served by

the completion of the transaction at the price arrived at.

The informed and willing buyer is assumed to be one who is familiar with property in general and more specifically with a property in question and who is capable of knowing all the uses for which a property is suited or to which it could be adapted in the reasonably near future and future benefits that would inure to the owner of the land. The informed and willing seller is also assumed to have a knowledge of property in general and of his own property in particular and who is willing to sell at the price because it is to his own best interests but who is under no compulsion to sell. In short, market value is the amount of money to be paid which would be arrived at in a free transaction, in the open market, by capable men of experience. For the purpose of this appraisal it has been assumed that both the prospective seller and purchaser of the subject lands on March 25, 1822, possessed the qualifications above set forth. No sound appraisal of the market value of real estate could be made without this primary assumption.



II. DESCRIPTION OF LAND



SECTION II

DESCRIPTION OF LAND

LEGAL DESCRIPTION

The land involved herein is a tract of 4,114,330 acres located in Michigan and northern Indiana, which is referred to as Royce Area 117, Michigan 1, Indiana, and is described as follows:

Beginning at a point on the south bank of the river St. Joseph of Lake Michigan, near the Parc aux Vaches, due north from Rum's Village, and running thence south to a line drawn due east from the southern extreme of Lake Michigan; then with said line east to the west line of the tract ceded by the Potawatomes to the United States by the Treaty of Fort Meigs in 1817 (7 Stat. 160); thence north on said line to the northwest corner of said tract, thence east along the northern line thereof to the northeast corner where it intersects the west line of the treaty cession of November 17, 1807, 7 Stat. 105; thence north on such west line to a point six miles south of the Michigan Base Line, thence west from that point on a line which is the south line of the territory ceded by the treaty of September 24, 1819, 7 Stat. 203, a distance of sixty miles; thence northeasterly on the western line of the 1819 cession to where such line crosses the main branch of the Grand river about two miles west of Saranac, Michigan; thence along the north bank of the Grand river to its mouth on Lake Michigan; thence following the shore of Lake Michigan southerly to the south bank of the said St. Joseph river, and thence with such south bank up said river to the place of beginning, exclusive of 84,480 acres in reservations and grants provided for by the Treaty of August 29, 1821, 7 Stat. 218, and lying within said described area.¹

¹Interlocutory Order of the Commission in Dockets Nos. 146, et al., dated June 30, 1958.

PRESENT-DAY BOUNDARIES

The subject lands are bounded by present-day landmarks as follows:

Beginning at the mouth of the Grand River, the boundary follows the river upstream to a point just east of the Kent County-Ionia County line. It then follows a straight line in a south-westerly direction to a point approximately five miles northwest of the present City of Kalamazoo. The boundary line then follows the south boundary of the northern tier of townships in Kalamazoo County, Calhoun County, and Jackson County to a point approximately six miles northeast of the present City of Jackson where the before-mentioned township lines intersect the Michigan meridian. It then follows straight south along that meridian to a point about three miles north of the present city of Hudson, then straight west parallel to the township line to the Branch County-Hillsdale County line, then south along that county line to a point straight east of the southern tip of Lake Michigan. This point is now in Indiana. It then goes directly west to the St. Joseph River, following that river to the Michigan Lake Shore. The lake shore constitutes the west boundary to the point of origin at the mouth of the Grand River.

Area 117, Michigan 1, Indiana, includes all of the following present Michigan counties: Cass, St. Joseph, Branch, and Van Buren. It also includes parts of the following present-day Michigan and Indiana counties: Berrien, Hillsdale, Kalamazoo, Calhoun, Jackson, Allegan, Barry, Ottawa, Kent, and Ionia in Michigan and parts of the Indiana counties of St. Joseph, Elkhart, LaGrange, and Steuben. The following counties, all in Michigan, are common to both Areas 117 and 111: Ionia, Barry, Kalamazoo, Calhoun, and Jackson. See map, Plate 1, page 5.

Counties in Area 117 (all or part)

Michigan: Berrien	- That part lying north of the St. Joseph River.
Cass	- All.
St. Joseph	- All.
Branch	- All.
Hillsdale	- Upper half of county, including townships 5 and 6 south and 1, 2, 3, and 4 west.

UNITED STATES
DEPARTMENT OF THE INTERIOR
HUBERT WORK, SECRETARY
GENERAL LAND OFFICE
WILLIAM SPRY, COMMISSIONER

STATE OF MICHIGAN

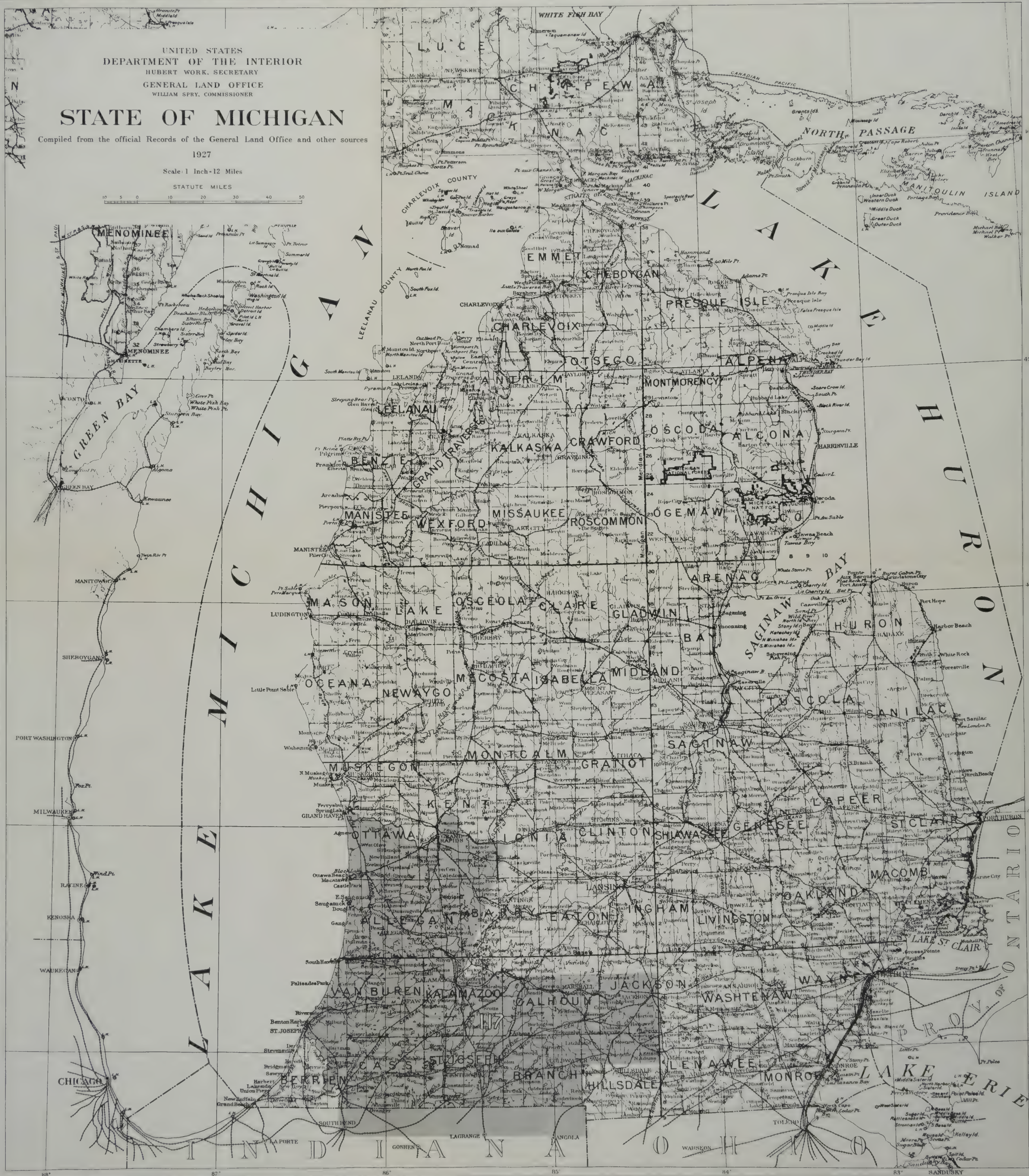
Compiled from the official Records of the General Land Office and other sources

1927

Scale: 1 Inch=12 Miles

STATUTE MILES

0 10 20 30 40 50



Michigan: Van Buren - All.
(Cont'd.)

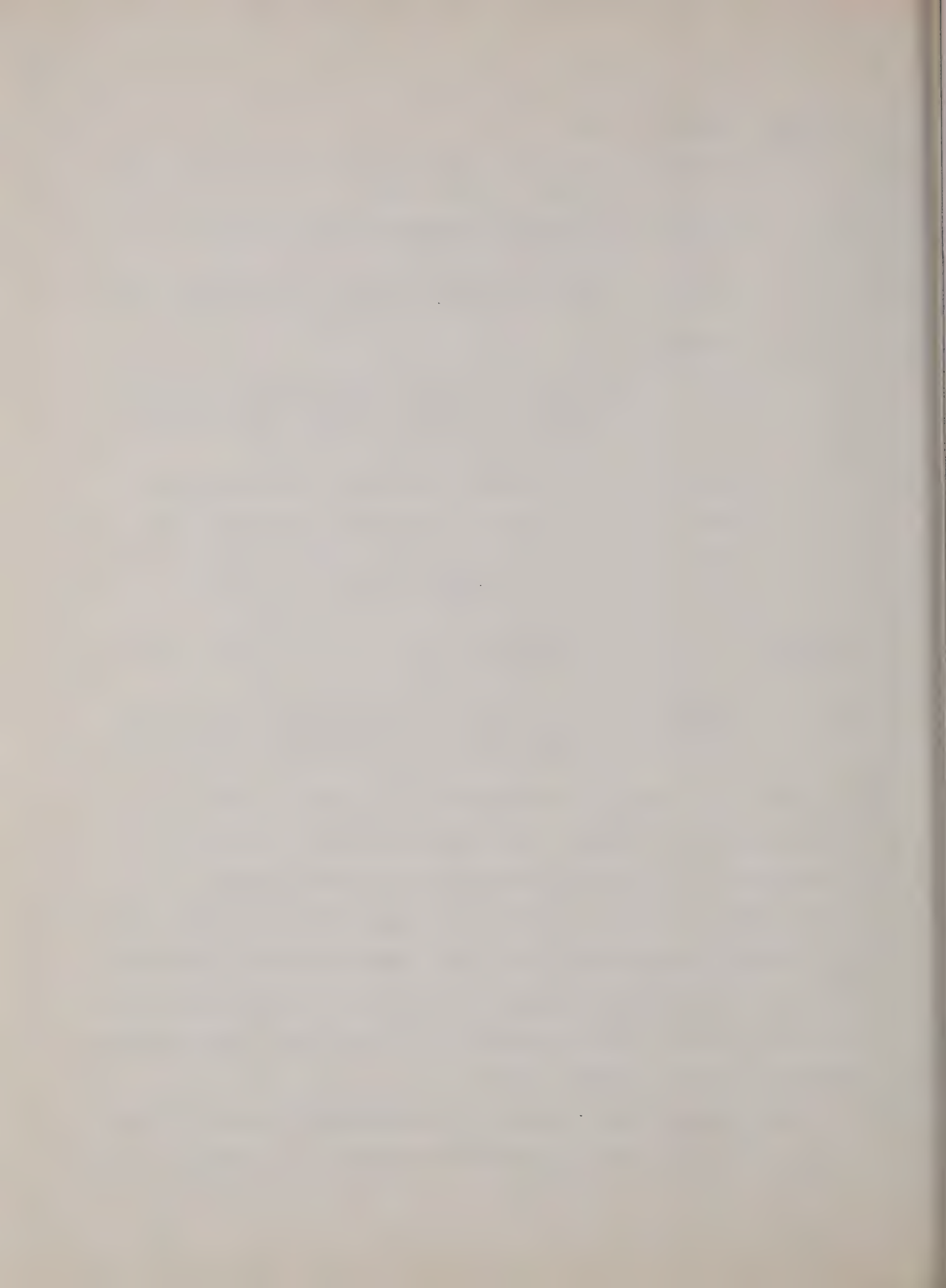
- Kalamazoo - All, except township 1 south, 9 west, and most of township 1 south, 10 west.
- Calhoun - All except the northern tier of townships 1 south, 4, 5, 6, 7, and 8 west.
- Jackson - That part represented by the nine southwestern townships: 2, 3, and 4 south, 1, 2, and 3 west.
- Allegan - All.
- Barry - Included are parts of five townships and two entire townships: parts of 1 north, 10 west; 2 north, 10 west; 3 north, 9 west; 4 north, 9 west; and all of 4 and 5 north, 10 west.
- Ottawa - All of that part lying south of the Grand River.
- Kent - All of that part lying south of the Grand River.
- Ionia - Only a small part of the northwest corner of townships 5 and 6 north, 8 west, is included.

Indiana: St. Joseph - The two northern tiers of townships east of the St. Joseph River.

Elkhart)
LaGrange) - The two northern tiers of townships. The area ten
Steuben) miles south of the present Michigan-Indiana boundary.

The subject lands lie in the southwest part of the Lower Peninsula of the present State of Michigan. Only a small strip along the southern edge of the tract lies south of the present Michigan-Indiana boundary. A very small triangular section of the State of Michigan southwest of the St. Joseph River was not included in the 1822 cession. None of the area extends north of the Grand River, and it is bordered on the west by the Lake Michigan shore line. The eastern boundary was determined by Indian treaty lines established previously. See map, Plate 1, page 5.

The southeast corner of the tract is approximately 55 miles from Lake Erie at its closest point at the mouth of the Raisin River. The northeast



corner is approximately 66 miles west of the Detroit River.

PHYSICAL SETTING OF THE STATE OF MICHIGAN

General Description

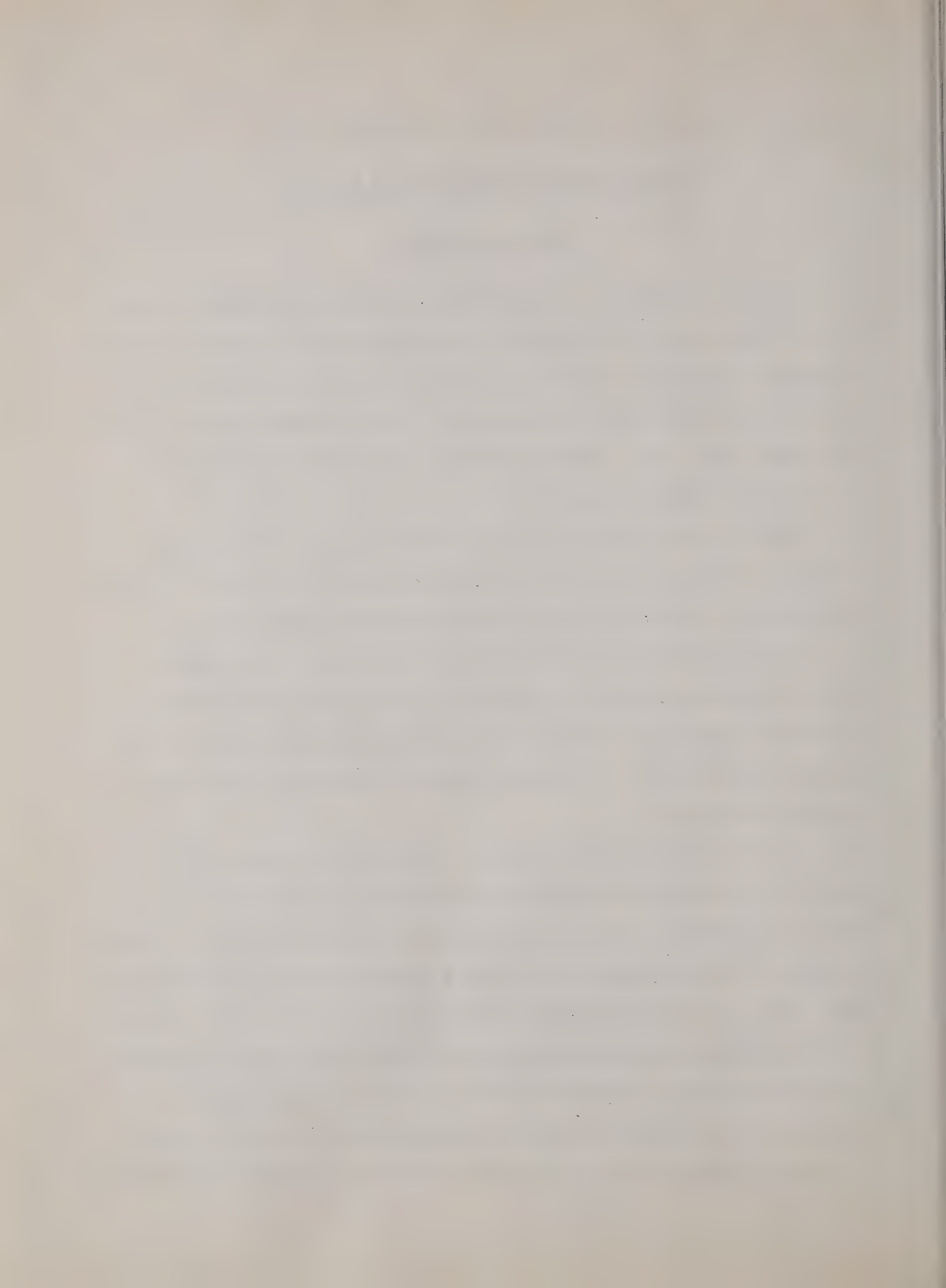
The State of Michigan is composed of two distinct peninsulas, referred to as "Upper" and "Lower"; the Upper has its base along the Wisconsin boundary and the Lower, its base on the boundaries of Ohio and Indiana. These peninsulas are centered in the Great Lakes. Michigan borders on four of the five Great Lakes; viz., Superior, Michigan, Huron, and Erie. The subject area borders on Lake Michigan.

Since the Great Lakes are a part of the St. Lawrence River drainage system, it follows that Michigan is in the drainage basin of this river, and its history is closely related to the history of this general area.

The Lower Peninsula points toward the Sault outlet of Lake Superior. Here, in general, is the focal center of the three upper Great Lakes and the sites of St. Ignace and Mackinac Island, the meeting grounds of French and Indians in early history. The Lower Peninsula extends north-south and is about 275 miles long.

The Lower Peninsula has the shape of a mittened left hand placed palm down, with Saginaw Bay occupying the space between the thumb and forefinger. Thus it is possible to speak of Port Austin as being at the end of the thumb, Mackinac at the top of the mitten, and the Saginaw lowlands in the palm of the hand. The subject area would then be in the area of the heel of the hand.

Physiographically, Michigan is a part of the great interior lowland of North America and is located well to the westward of the Appalachian Mountains which separates it from the Atlantic Ocean. Lying in the upper St. Lawrence Basin, Michigan is in line westward from the Mohawk depression



in the Erie Canal route which led explorer and settler westward.²

Rivers

Michigan is endowed by nature with a varied surface and adequate rainfall, which is combined to produce numerous streams leading to the Great Lakes. In common with all the lands where run-off collects in streams, a given area serves to gather the flow by means of tributaries which feed the main water courses. Therefore, each stream in Michigan has its catchment area--its basin or its valley, if the latter word is used in its broader meaning.

There are some dozen or more basins that might be considered major state drainage lines. The outlet for nearly all the drainage of the state is the Great Lakes. At the base of the Lower Peninsula the Great Lakes-Mississippi divide lies but a short distance to the south of the Michigan border. Of this dozen basins, there are three which drain practically all of the subject area. These are the Grand River, Kalamazoo River, and St. Joseph River basins. Three other basins along the eastern side of Michigan have a bearing on the economic development of the subject area. These are the Raisin River, Huron River, and Clinton River basins. The subject tract touches these basins, but since the rivers lead to Lake Erie and settled areas, the development of Area 117, Michigan 1, Indiana, was closely related to and dependent on economic development to the east. These rivers are more clearly shown on map, Plate 4, page 101.

²Bert Hudgins, Michigan, Geographic Backgrounds in the Development of the Commonwealth (Detroit: Edwards Brothers, Inc., 1958), p. 1.

The area and length of these basin regions are as follows:³

<u>Basin</u>	<u>Area in Square Miles</u>	<u>Length in Miles</u>
Grand	5,400	225
Kalamazoo	2,000	150
St. Joseph	4,200 (2,800 in Michigan; 1,400 in Indiana)	200
Raisin	1,000	100
Huron	800	100
Clinton	700	50

In general the rivers of the Lower Peninsula flow westward to Lake Michigan or eastward to Lakes Huron, St. Clair, and Erie. In more detail the divide for this peninsula begins in the south near where the Indiana-Ohio-Michigan boundaries join and extends northeastward along the thumb upland. Near the middle of the peninsula it swings to the west into Mecosta County, thence northward to the Straits of Mackinac after following a devious route to include Higgins and Houghton Lakes within Lake Michigan general drainage. In the south this divide is east of the center of the peninsula and opposite the Saginaw lowlands, the divide is west of the center of the peninsula, but in general the areas of the two slopes are about equal.⁴

Nearly all of the rivers that exit into Lake Michigan have outlets partially dammed by sand dunes, which causes the rivers to broaden in each case to make a lake before entering the larger water body. A typical example

³Ibid., p. 28.

⁴Ibid., pp. 13-17.

is Kalamazoo Lake near the mouth of the Kalamazoo River within Area 117.⁵

Another characteristic of rivers in the Lower Peninsula is that many of them have rapids somewhere in their courses. In a number of cases rapids are due to boulder-blocked streams in the positions of terminal moraines. This is particularly true in the Raisin and Huron Rivers east of Area 117 and the upper portions of the St. Joseph, Kalamazoo, and Grand Rivers within the involved tract. Sometimes the rapids are due to the bed rock encountered in the beds of streams. All of the state except the western highland of the Upper Peninsula is underlain with sedimentary rock. The glacial drift is estimated to cover the bed rock by an average of 100 feet in the Lower Peninsula, but in some places this cover is much thinner and outcrops appear. If not an outcrop, the stream may have cut through glacial material to contact bed rock. Both the Huron and Raisin River beds are on rocks of the Monroe formation a few miles above their exits. Grand Rapids received its name from the fact that here the Grand River tumbles over layers of bed rock in its course as it does also at Grand Ledge and Ionia.⁶

Regardless of the interruptions in the courses of Michigan streams by rapids and occasional waterfalls, the lower portions of some are navigable. Most of the rivers are spring fed and have lakes in the drainage basins which contributes to evenness of flow.

The Raisin River is one of the most rapid streams in Michigan and has the most winding course of all. In a direct line from its mouth to its source, it is but sixty miles; however, measured along its bed, it is 130 miles in length.

⁵Ibid., p. 22.

⁶Ibid., p. 24.

In eastern Michigan the Huron River has a less rapid descent and a more moderate current. On the Clinton River 20 miles of its lower course were originally navigable for small boats, but as later pointed out, such facts had no bearing on the market value of Area 117 in 1822.

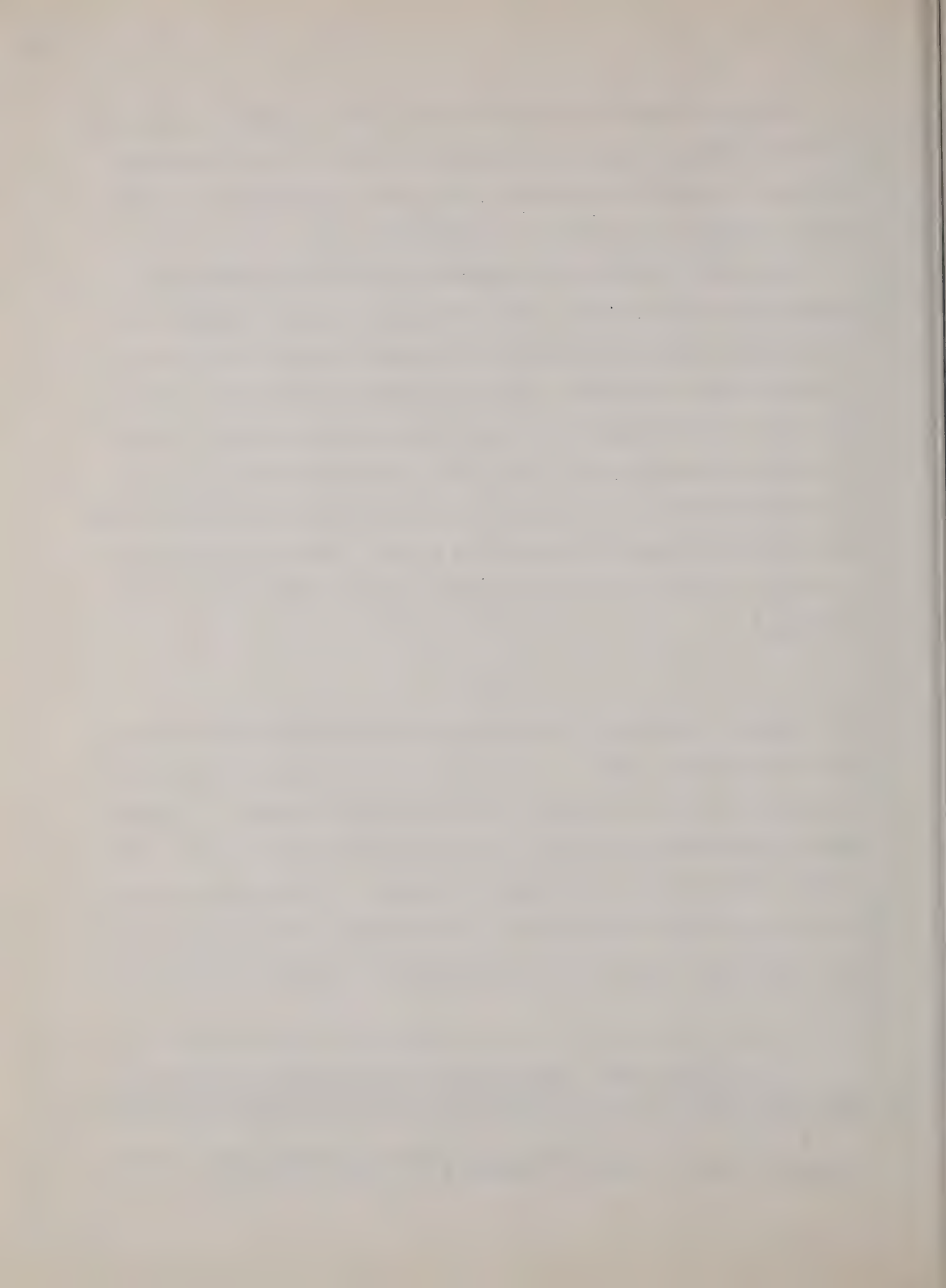
The rivers of the western watershed flowing to Lake Michigan which served the subject lands were important to navigation and transportation eventually, but not until steamboats and sailing vessels had first made the long trip through the Straits of Mackinac regularly and thereby provided an adequate means of transportation from the mouths of these rivers. In 1822 there was no reason for these rivers within the subject lands to have been considered important on the question of the market value of the subject lands since population was not present nor did a market exist for any prospective production therein in excess of consumption anywhere on the shores of Lake Michigan.⁷

Forests

Originally the State of Michigan was forested throughout with the exception of marsh areas, some bare rock areas in the western part of the Upper Peninsula, and the "oak openings" of the southwestern counties. The general mid-latitude position of the state resulted in a mixed hardwood forest interspersed with soft woods mainly towards the north. A line from Port Huron to Saginaw and continued to Grand Haven at the northwest corner of Area 117 marks the northern limit of the oak-hickory association in general.⁸ North of this

⁷George Newman Fuller, Economic and Social Beginnings of Michigan; A Study of the Settlement of the Lower Peninsula During the Territorial Period 1805-1837 (Lansing: Michigan Historical Commission, 1916), pp. 24-25.

⁸George W. Hotchkiss, History of the Lumber and Forest Industry of the Northwest (Chicago: George W. Hotchkiss & Co., 1898), pp. 30-33.



line was the beech-maple-hemlock association predominately, but in certain places large tracts of white pine were interspersed. Norway pines, spruce, and birch were also abundant in the regions north of the Port Huron-Saginaw-Grand Haven line. All of the subject land lay south of this timber line. Because of the varied surface in the Upper Peninsula, it has a great variety of trees resembling the Canadian forest to the north, but hickory, walnut, and white oak were rare. Elm, ash, cherry, poplar, and numerous other species were found throughout the state. The hardwood forests of the southern counties, inclusive of Area 117, were similar in character to the forestation of Ohio and Indiana.⁹

Prairie Openings

In southwestern Michigan the nature of early settlement within Area 117 was influenced by the prairie-like openings in the original forests. The treeless character of these openings was partly due to natural causes and partially to the Indians. The grass early got ahead of the trees; later the Indians set fire to these areas to improve their hunting grounds.¹⁰ These oak openings, so called, were extremely desirable as there was no necessity to clear the trees, only the problem of breaking the sod. In some cases these prairie openings were large enough to be given identifying names; others less extensive were commented on by surveyors.

Fuller has furnished the following information relative to the manner in which settlers evaluated land in southern Michigan by the timber thereon:

The relation of timber to soil furnished the settler with an additional and fairly reliable index to the character of lands. His experience with similar soils in his old home enabled him to

⁹Ibid.

¹⁰Fuller, op. cit., pp. 34-35.

judge fairly well of their adaption to crops. Burr-oak was early held to indicate one of the best of soils for wheat, and the burr-oak plains were next in favor after the prairies. Occasionally a mistake was made, as with the highly productive bright yellow loam of the openings covered with hickory, which had the appearance of being sterile. Lanman says this soil was excellent for wheat. Settlers looked also askance at the sandy soil of the pine land. In general, the heavily timbered land was held not to be so congenial to wheat, and was not warm enough for corn, but was known to produce excellent crops of hay, oats, and potatoes. These limitations combined with the obstacles to clearing, caused this land to be settled slowly. The best soils were supposed to lie under a covering of black walnut, whitewood, ash, buckeye, and sugar maple, while the poorer land, characterized by a grayish sand over blue clay, was indexed by much soft maple and some varieties of beech.¹¹

Climate

Among the large climatic divisions of the world, that of Michigan is considered to be humid continental. The normal precipitation for the state is approximately 30.45 inches, which is quite sufficient for growth of vegetation and crops and its mid-latitude interior continental position assures rather marked seasons of summer and winter. The southern edge of Michigan lies at 41.5 degrees north latitude. The mean annual temperature in the southern tier of counties is 48° F.¹²

Michigan is in the westerly wind belt of the northern hemisphere and is therefore subject to the climate common to these winds. The westerly winds of the northern hemisphere generally blow from the west to east and bear somewhat to the northeast.

Warm and unsettled weather with cloudiness and precipitation may be followed by high pressure areas, bringing clear and cooler weather. Marked

¹¹Ibid., pp. 38-39. He also refers to Blois, Gazetteer, and Lanman, History of Michigan.

¹²Hudgins, op. cit., p. 31.



weather changes every few days is not uncommon.¹³

The effect of close proximity of the land to large bodies of water is a very important factor in the climate of Michigan.¹⁴ The lakes bordering Michigan serve to moderate temperatures of the air over the lakes and thus moderate temperatures over the state. The tempering effect of the lakes delays the coming of spring and also delays the coming of autumn. The entire state feels the delayed effects of the coming of the seasons, but the most pronounced effects are felt on the western shores.

The highest annual mean temperature of 49° is found in the extreme southern counties. The southwestern corner of the state, which includes a part of Area 117, has an average January temperature of over 26°, the warmest in the state. This is related to the southern position and to the influence of Lake Michigan in moderating the lower temperatures of the westerlies which come from the cold continental interior.

For Area 117 the mean annual temperature is from 46° to 49° F. The average January temperatures range from 24° to 26° F. and the average July temperatures range from 66° to 72° F.¹⁵

Michigan is a land of marked seasons of summer and winter. A study of a map showing the length of the growing season for the state discloses that the longest growing season of 180 days is recorded only for the southwestern corner of the state. Typical length of the growing season within the subject area is 150 to 160 days. The northern parts of the tract may be lower while southern parts will be slightly higher to a possible maximum of 180 days.¹⁶

¹³Ibid., pp. 31-32.

¹⁴Fuller, op. cit., p. 3.

¹⁵Hudgins, op. cit., p. 35.

¹⁶Ibid., pp. 34-35.

Precipitation

Michigan in general is considered a well-watered state. The precipitation averages range from nearly 40 inches a year in some of the southern counties to less than 24 inches in northern areas.¹⁷

The highest annual average precipitation for the Lower Peninsula is 38 inches, found in St. Joseph County on the Indiana border. It is to be noted that Indiana and Ohio lie between the Michigan and Atlantic Gulf sources of moisture, and as a result, both of these states have higher precipitation than does Michigan. The west side of the Lower Peninsula shows 30 inches or better of rainfall, while the east side has somewhat less. Portions of the thumb and the Saginaw lowlands have lower than 24 inches of average annual precipitation.

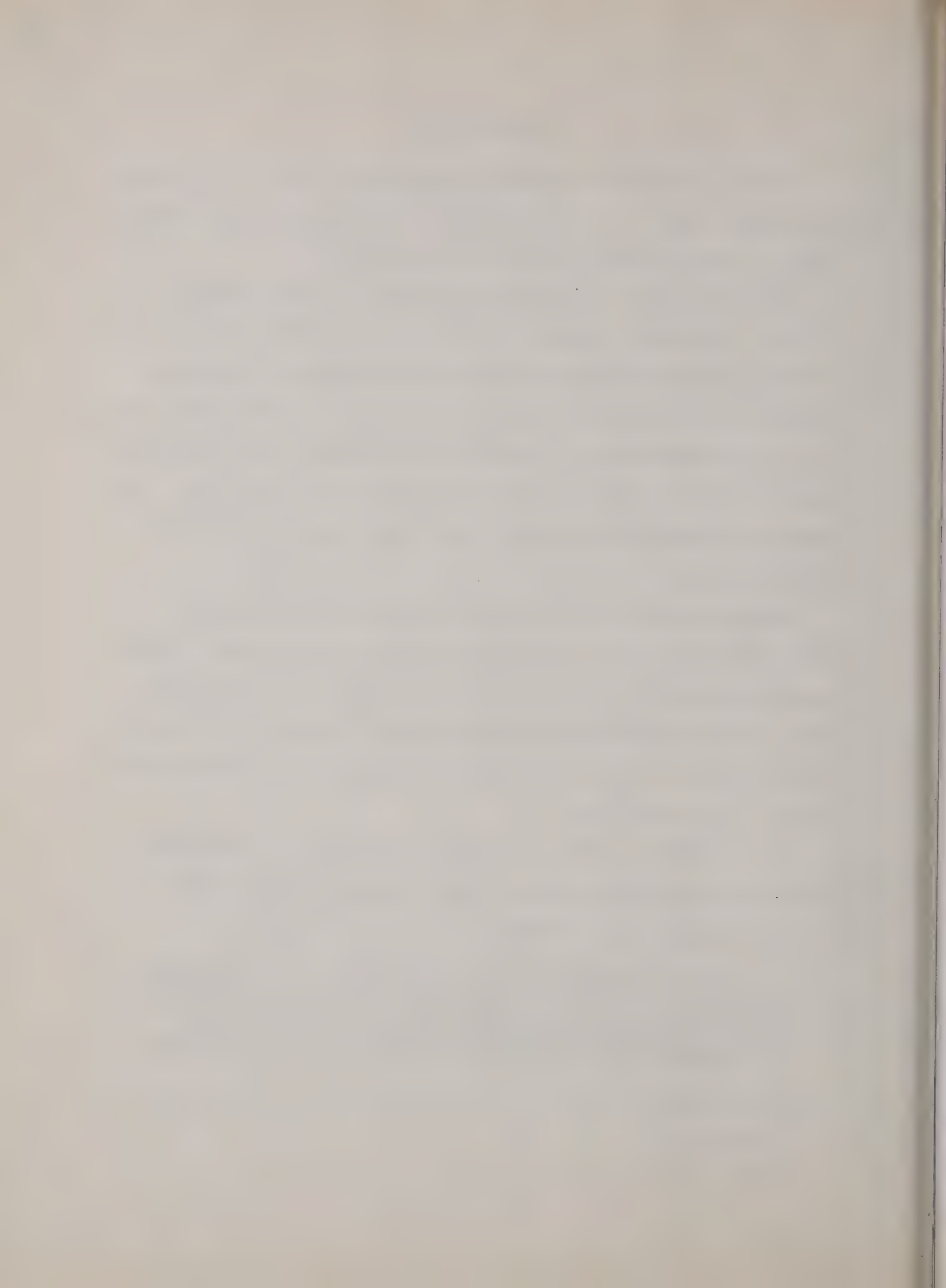
Though the average annual precipitation for the state as a whole is 30.45 inches, this varies from year to year, though not greatly. The state average annual snowfall is 57.3 inches. The lowest amount of snowfall is found in the southern and southeastern portion of the state. Here the moisture is plentiful, but the temperature is frequently too high for snow and it comes in the form of rain.¹⁸

A general though concise description of that portion of Michigan in which Area 117 falls is contained in the following characterization by J. O. Veatch of Michigan State University:

The major physical divisions of the Southern Peninsula are two separate highland masses--the Southern Upland and the Northern Highland, not sharply defined but vaguely separated by a belt of slightly lower land extending from the westward limit of the Saginaw Bay lowland to Muskegon and Ottawa counties. The higher

¹⁷Ibid., p. 36.

¹⁸Ibid., pp. 36-37.



parts of the Southern Upland reach an elevation of approximately 900 to 1200 feet above sea level, a few places near a maximum of 1300, or approximately 400 to 600 feet above the levels of Lakes Huron, Michigan, and Erie. The land surface is not conspicuously rough or deeply dissected, as a whole, nor is it quite flat and featureless. It consists in part of smooth, undulating, and rolling plains, and in part of arcs of morainic highland which are characterized by a maze of rounded hills, short drainage hollows, basin depressions, lakes, and swamps.

The interior highland is bordered on the east by a broad lowland belt which reaches a maximum width of nearly 50 miles, represents high stages of glacial lakes, and extends from Saginaw Bay southward to the Ohio line. The land surface for the most part consists of flat clay and sand plains, locally swampy, which reach a maximum elevation perhaps 150 or 175 feet above the levels of the adjacent Great Lakes and connecting waters.

A lowland also exists on the west side bordering Lake Michigan, and extends from Muskegon county southward to the Indiana line. It is from 3 or 4 to 15 to 25 miles in width and has embayments and terraces extending up the valleys of the Muskegon, Grand, and St. Joseph rivers. The surface consists of flat, pitted, wet, and dry, sandy plains, flat clay plains, low clay ridges, and lake shore dunes. The elevation inland probably does not exceed 150 feet above Lake Michigan, although some of the higher dunes along the shore may exceed 200 feet.¹⁹

The above constitutes a general description of Area 117 and surrounding lands and is presented primarily to orient the area in its present-day surroundings. A summary of the original field notes of survey and contemporary opinions of the lands of Michigan Territory are included in subsequent portions of this valuation report.

¹⁹J. O. Veatch, Soils and Land of Michigan (East Lansing: The Michigan State College Press, 1953), pp. 2-3

III. BRIEF HISTORY OF
NORTHWEST TERRITORY

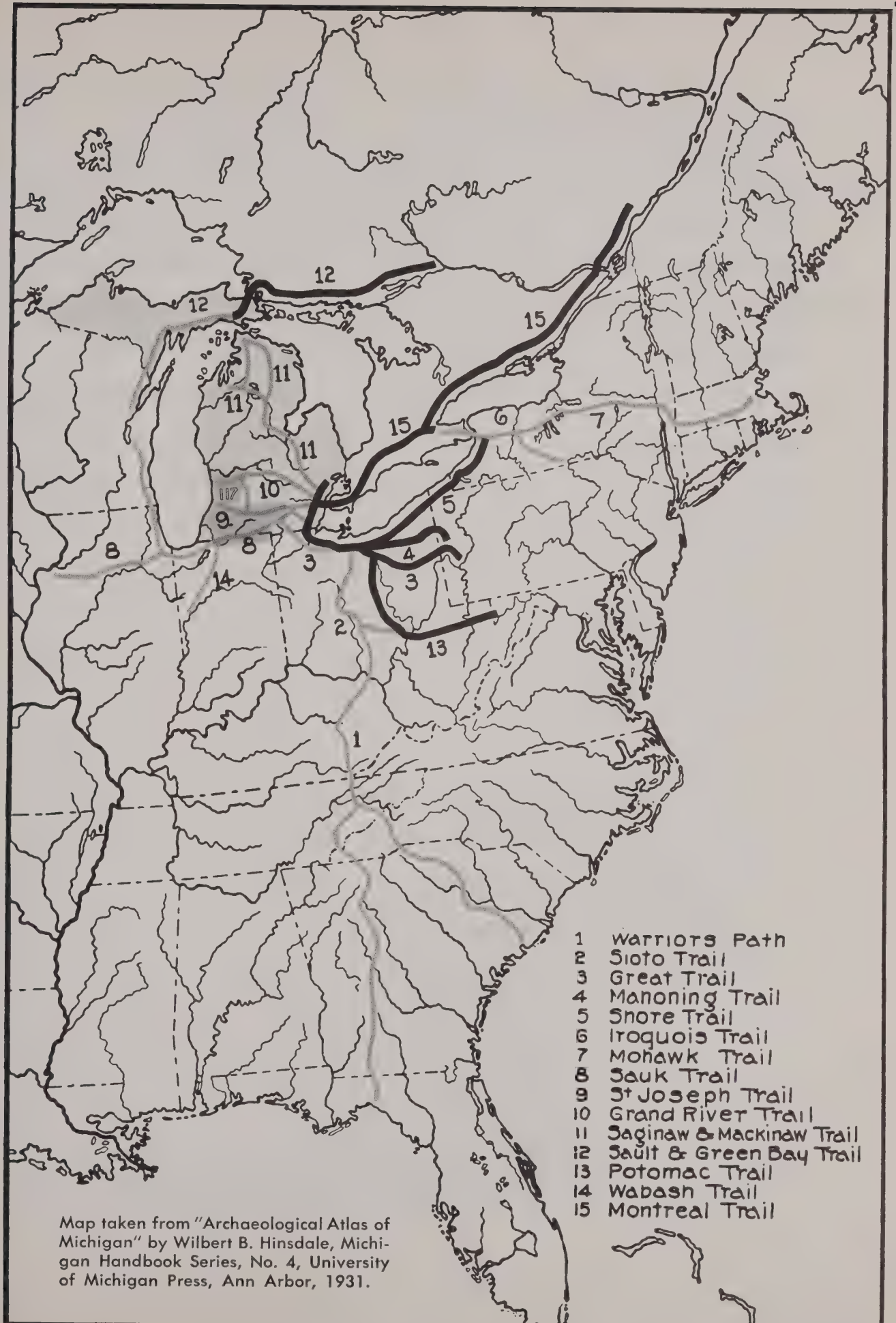
SECTION III

BRIEF HISTORY OF THE DEVELOPMENT OF THE NORTHWEST TERRITORY TO 1822

After the discovery of America by Columbus in 1492, several other countries in addition to Spain were interested in the New World. England was soon to fix claim to the Atlantic Seaboard from Maine to Florida by Cabot's explorations. The French also claimed land along the Atlantic, primarily around the mouth of the St. Lawrence. The attraction to fishing grounds has frequently been given as the main reason why the French centered their interest in this particular area. Once in the St. Lawrence River regions the French people followed these early water routes to the Great Lakes and on to the Mississippi River system. This was instrumental in establishing their sphere of influence in the area of Michigan, which was to become a particularly important part of their claims.

The Great Lakes gave to the Middle West a vital highway to the Atlantic Ocean and Europe by way of the St. Lawrence River. By this route came the first white man. By the same route the skins of fur-bearing animals, the first exportable surplus of the interior, were carried to European markets. See map, Plate 2, page 18.

The excellence of the furs in the lakes region invited the French to engage in the fur industry which soon became very profitable. This industry necessitated following the waterways and trading and trapping with the Indians, none of which was conducive to permanent settlements nor to the formation of



large colonies of growing populations of French and Americans.

From the coming to Michigan of the French explorers under Champlain in 1622 to the end of the American Revolution in 1783, travel and transportation in the interior were largely dependent upon the canoe which was borrowed from the Indians and was well adapted for use on the Great Lakes-Ottawa River-St. Lawrence waterway and the portages to the Mississippi-Ohio system.

One of the early French explorers was Champlain. He did not actually reach Michigan himself, but he sent two of his men, Brule and Grenoble, who explored part of the Upper Peninsula in 1623.²⁰ Etienne Brule returned to Europe with nuggets of copper, and some of the descriptions of the country he visited would lead to the belief that he was the first European to set foot on the soil of Michigan, probably prior to 1629.

Joliet and Marquette had reached the Mississippi River by way of Wisconsin in 1673.²¹ While they may not have actually explored Michigan, they were early explorers of the old Northwest Territory, which included Michigan.

LaSalle came on the scene in 1678 to explore more of Michigan. He built the "Griffin," the first vessel to sail the Great Lakes. He passed through Lake Erie and entered Lake Huron and rounded the Lower Peninsula to Green Bay. On the return voyage the Griffin disappeared, but LaSalle was not on it, having left it to explore in southwestern Michigan, in the course of which he ascended the St. Joseph River to the St. Joseph-Kankakee Rivers portage in 1679. LaSalle explored widely in 1682 when he reached the Mississippi and fixed French claims to the far reaches of the North American

²⁰F. Clever Bald, Michigan in Four Centuries (New York: Harper & Brothers, 1954), p. 24.

²¹Ibid., p. 38.

Continent from Quebec through the Great Lakes to the Gulf of Mexico.²²

Michilimackinac Island in the Straits between Lakes Michigan and Huron early became the focal point of a very profitable fur trade business in the upper Michigan area. Because of the encroachments by English fur traders and the Iroquois Indians from the east, Cadillac moved the trading post to the lower straits, and as a result Detroit was founded in 1701.²³ From then until the end of the French and Indian War in 1763, the British and French both operated in the fur-trading business in this area. After 1763 the territory, including the area which later became Michigan, had passed from the French to the control of the British.

The French had claimed the region for more than a half century but had done little toward settling and developing it. Cadillac had brought horses, cattle, and grain seed, but this did not encourage settlers to come to such a dangerous pioneer land. The posts at Michilimackinac (within Area 205, Michigan 1), St. Joseph (within Area 117, Michigan 1), and Detroit (within Area 66, Michigan 1) were each crude and uninviting for prospective settlers who might have had families. The inhabitants consisted mostly of soldiers and fur traders.²⁴ Farther south were the posts of Miami, Ouitenan, and Vincennes in Indiana on the Wabash River, which were more advanced due to the contact with settlers coming down the Ohio.

Up to 1763, during the time the French claimed the interior of the continent, the Indians of the Great Lakes and the Ohio and Mississippi Valleys were generally loyal to the King of France and usually fought in conjunction

²²Ibid., pp. 40-41.

²³Ibid., pp. 49-50.

²⁴Hudgins, op. cit., p. 42.

with his armies. Relatively few French came to the St. Lawrence River Region, and those who came did not engage in extensive agricultural operations. The posts of the fur traders, the forts of the soldiers, and the stations of the missionaries did not take up much space, nor did they interfere greatly with the Indians' way of life.

The French and Indian War, which began in 1756 and ended in 1763, deprived the French of all their North American possessions which, at its close, were ceded to Great Britain.

Michigan remained in the hands of the British, and no attempt was made to forward its settlement during the whole of the American Revolution which ended with the Definitive Treaty of Peace of 1783. The entire period of the British regime from 1763 to 1783 was marked with bloodshed. It was also a period of little development within the territory. Contention over the fur trade, the endless warfare, an unstable government, a lack of land surveys, and limited access all conspired to make it uninviting to early settlers.

During the Revolutionary War, Michigan Territory was a border region and suffered all the terrors of savage warfare. Expeditions were outfitted in Detroit by the British and Canadians to harass the settlers in Ohio, Kentucky, and the other partially settled regions west of the Appalachians.²⁵

The Revolutionary War was officially ended in 1783. Just 20 years after she had taken possession of the land east of the Mississippi from France in 1763, Britain ceded it to the United States of America under the Definitive Treaty of Peace of 1783.²⁶

After the Revolution the Ohio River had replaced the St. Lawrence River

²⁵Bald, op. cit., pp. 80-85.

²⁶Ibid., p. 86.

as an important artery for the people of the Middle West when American frontiersmen began to float down its waters to Ohio, Kentucky, Indiana, and Illinois. Its tributaries rose far to the east along the watershed of the Appalachians. Frequently the sources of these streams were near the beginnings of rivers which flow eastward to the Atlantic and near the passes through the mountains. Indian trails and hunters' paths followed these passes and furnished routes through the Appalachians to the land of the western waters. The principal roadways which grew out of these paths were: (1) the Genesee Road in New York from the Mohawk River to Lake Erie or to the Allegheny, (2) the Forbes Road from the Susquehanna to the forks of the Ohio, (3) Braddock's Road from the Potomac to the Monongahela, (4) the Quaker Trace by way of the New Kanawha River to the Ohio at Point Pleasant, and (5) Boone's Wilderness Trail from the upper Tennessee Valley to the Kentucky bluegrass regions.²⁷ On the other hand, there was no travel of any consequence along the present routes of Lake Erie from Buffalo to Detroit and west.

The land speculators who argued for a western policy that could foster colonies in the Mississippi Valley realized that nothing could hold back the pioneers who in 1763 were poised on the crest of the Appalachians, ready to move into the interior of the continent. For a century and a half colonists had been hemmed in by towering mountains, hostile Indians, and warlike Frenchmen, while immigrants and natives vied for overcrowded coastal lands. Now the barriers were down--the French subdued, the Indians seemingly cowed, the mountains pierced by military roads.²⁸

Pennsylvania, New Jersey, Virginia, and North Carolina contributed

²⁷Ray Allen Billington, Westward Expansion (New York, The Macmillan Company, 1954), pp. 154-155.

²⁸Ibid.

heavily to the migration west of the Appalachians due partly to the pressure of what was then thought of as surplus population in these Middle Colonies and partly to the presence there of routes to the interior. The Scotch-Irish and German immigrants who made their homes in the western valleys of those provinces filled them to the saturation point, or what many more venturesome considered the saturation point. From Pennsylvania, Maryland, and Virginia they could follow the crude trails cut by Britain's armies to the forks of the Ohio. From western Virginia and Maryland they could make their way along the valleys of the Cheat or Youghiogheny Rivers to the same spot. Farther south lay one of nature's grandest passageways, Cumberland Gap, which offered comparatively easy passage from backcountry Virginia and North Carolina into the hilly uplands of Kentucky. This combination of land-starved frontiersmen and easy transportation routes explains why the Appalachian frontier bulged first in the center.²⁹

For a generation before 1795 the westward march of the American people was halted while their independence was being won, a workable government system established, Indians subdued, and foreign intrigue swept from the borderlands. Now frontiersmen were ready to move again, as Jay's Treaty, Wayne's victory, the Treaty of Greenville, and Pinckney's Treaty cleared the way. From New England, the Middle States, and the South they came to the area beyond the Appalachian Mountains.³⁰

Unusually choice lands were not the magnets which drew these pioneers towards the frontier, for some of the best spots had already been appropriated by the bolder spirits who had ventured across the Appalachians just after the

²⁹Ibid.

³⁰Ibid., p. 246.

Revolution; viz., the valleys of eastern Tennessee, the Nashville Basin, the limestone areas of Kentucky, and the Ohio River lowlands. Settlers who went west during those years were less concerned with finding ideal conditions in their new homes than escaping bad conditions in the old. In each section contributing to the migration people were discontented and anxious to be on the move.³¹

By 1796 when 77,000 people lived in Tennessee, the territory was ready to enter the Union as a state. By 1800 more than 220,000 people occupied Kentucky.³²

The peopling of the Northwest Territory began in 1795 when Wayne's Treaty of Greenville removed Indians from much of the Ohio Country (Royce Area 11, Ohio). Land speculation was especially important in the first settling of Ohio. Speculators not only provided pioneers with needed credit but helped establish interior towns. By the Act of March 2, 1801, 2 Stat. 108, Ohio Territory and Indiana Territory were separated, and Ohio rapidly moved toward statehood.

Both the minimum government price and the liberal Credit Act of May 10, 1800, 2 Stat. 73, stimulated the settlement of the Northwest. It fixed a credit price of \$2.00 per acre and a cash price of \$1.64 per acre for public lands. From New England, the Middle States, and the South the immigrants came in ever-increasing numbers--southern Quakers fleeing before the advancing slave frontier; upcountry farmers from the Virginia or Carolina Piedmont driven westward by wornout soils; pioneers from Kentucky and Pennsylvania drifting onward with the advancing settlements; New Englanders who moved as

³¹Ibid., pp. 246-247.

³²Twelfth Census of the United States, 1900, Vol. I, Population, Part I, Table 1, p. 3.

individuals or in whole villages, intact with pastors and schoolmasters and deacons, to found in Ohio towns which were exact replicas of the quiet villages they left behind. Some bought from speculators who offered land in the United States and Virginia Military Reserves or in the Refugee Tract set aside by Congress for Canadians who aided the American Revolution. More patronized the government land offices; 3,374,843 acres³³ were sold in the Northwest in the first 11 years after the passage of the Credit Land Act of 1800. Still others purchased lands in Ohio from the Connecticut Land Company or from the Firelands Company which was formed by the shareholders in the Firelands of the Western Reserve. By 1812 more than 250,000 people lived in Ohio, and the whole region north and west to the Greenville Treaty line, established in 1795, was beginning to resemble an eastern state with passable roads, towns, and a spreading blanket of cultivated fields.

So rapid was the influx into Ohio that some newcomers moved over into Indiana Territory which increased its population under Harrison's able leadership until a legislature could be called in 1805. At the same time the northern portion was set aside as Michigan Territory although that isolated region did not feel the impact of any migration until long after the War of 1812. More new settlers sought homes in the country west of the Wabash where they clustered about the French villages of Kaskaskia and Cahokia, laid out primitive new outposts at Fort Massac and Shawneetown, or cleared the fertile lands of the American Bottom opposite St. Louis. The difficulty of administering those distant settlements from the Indiana Territorial seat at Vincennes led Congress in 1809 to set up the separate Territory of Illinois, governed by Ninian Edwards of Kentucky. By 1812 when Illinois entered its second

³³American State Papers, Public Lands, Class VIII, Vol. II, No. 194, p. 442.

territory stage with the election of a legislature, 13,000 persons were scattered through the region, while Indiana's population was 25,000, and Michigan Territory's was approximately 5,000. These areas were in primitive frontier stages when the outbreak of a new wilderness war in 1812 brought the westward movement to a temporary halt.

The wooded stretches of southern Indiana and Illinois along the Ohio River and its tributaries offered both adequate soil and familiar vegetation, as well as transportation, and it was toward those regions that numerous home-seekers turned just after the War of 1812. During this first period of settlement immigrants came largely from the uplands of the South. Disturbed social conditions there hurried them westward. Many were seasoned pioneers from Kentucky and Tennessee who, having been held back by a generation of Indian warfare, now resumed their advance. More were small farmers driven from their southern homes by the rapid extension of the plantation system which engulfed the western Carolinas, Georgia, and eastern Tennessee during the postwar years. Some from these regions sought homes in the Northwest because their dislike of slavery made life amid bonded labor unpleasant, others because the aristocratic social distinctions inherent in the plantation system were distasteful to their democratic instincts, and still more simply because their lands were absorbed by richer plantation owners. All these forces drove thousands of southerners across the Ohio River.

Despite their activity at promoting paper towns, land speculators played a less important role than on earlier frontiers. The greatest part of the public lands passed into the hands of settlers through sales and private entries at public land offices.

In 1820 Ohio was well established as a state. Indiana had been admitted

to the Union in 1816.³⁴ Illinois became a state December 3, 1818.³⁵ The population of Ohio in 1820 was some 580,000, of which only approximately 55,600 was located in the vicinity of Lake Erie, the balance along the Ohio River and the central part of the state. See Plate 6, page 117. Indiana's population was 147,000, but settlement had been generally in a U-shape in the southern half of the state around the east, west, and south until the opening of the New Purchase, Royce Area 99, Ohio, Indiana, in 1819.

In 1820 Illinois had a population of 55,000 and Missouri 66,500.³⁶ During this period of expansion toward the west, the stream of immigration passed far to the south of Michigan Territory and subject lands, principally along the Ohio River.

During the period from 1814 to 1818 throughout the nation there was tremendous expansion in all business activities, but it overreached itself and a major recession soon developed. Ironically enough, public land sales in the United States boomed from 864,536.53 acres in 1814 to 5,475,648.17 acres in 1819. However, by December 31, 1820, sales had dropped to 821,904.89 acres and remained fairly stable through 1828 at about the same acreage as sold in 1814.³⁷ The situation relative to the scarcity of capital during this period is described by Buley:

Despite the hardships of the first few years in the wilderness and prairie, a surplus for export soon became available in heavy staples such as grain, meat, whiskey, lumber, and livestock. The problem then, was one of markets, transportation, money, and credit. Then as now, a degree of stable prosperity depended upon

³⁴R. Carlyle Buley, The Old Northwest, Vol. I (Bloomington, Indiana: Indiana University Press, 1951), p. 75.

³⁵*Ibid.*, p. 93.

³⁶Twelfth Census, *op. cit.*

³⁷American State Papers, Public Lands, Vol. VIII, House Doc. No. 1338, p. 2.

a rough balance not only between the geographic sections, but between agriculture, industry, and commerce. Achievement of such a balance necessitated the solution of a difficult problem in conflicting interests.

Following the war came the usual period of good prices and speculation. Europe needed raw materials and our foreign commerce increased several hundred per cent in the next few years. The western land boom was on, state bank notes flooded the country, and the price of land and agricultural products was high. . . .

. . . The Zanesville Express in the early summer advised farmers to get their wheat to New Orleans before mid-December, for the previous winter flour had been \$15 and ships had had to leave that port in ballast for lack of cargo. [Cited in Liberty Hall and Cincinnati Gazette, June 16, 1818.] The flatboat traffic down river was heavy. One person counted 643 flatboats headed for New Orleans on his trip upstream. Merchants were speculating in commodities, farmers in land, everyone directly or indirectly in the flimsy money of the state banks.

The false delusions of artificial wealth increased the demand of the farmer for foreign productions, and led him to consume in anticipation of his crops. The country trader, seduced by a demand for more than his ordinary supply of merchandise, was tempted to the extension of his credit, and filled his stores, at the most extravagant prices, with goods vastly beyond what the actual resources of his customers could pay for, whilst the importing merchant, having no guide to ascertain the real wants of the community but the eagerness of retailers to purchase his commodities, sent orders abroad for a supply of manufactures wholly disproportioned to the effective demand of the country. Individuals of every profession were tempted to embark in speculation, and the whole community was literally plunged in debt. The plenty of money, as it was called, was so profuse, that the managers of the Banks were fearful they could not find a demand for all they could fabricate, and it was no unfrequent occurrence to hear solicitations urged to individuals to become borrowers, under promises as to indulgences the most tempting.

As usual, such conditions tempted many to live by speculation rather than labor; fictitious values were given to all kinds of property. "Specie was driven from circulation as if by common consent, and all effort to restrict society to its natural conditions was treated with undisguised contempt."

Deflation came rapidly in the late summer of 1818. The contraction in money and credit was accompanied by an abrupt drop in prices of commodities and property values. . . . The break in prices and the uncertain state of the currency disrupted business. Honest traders as well as speculators were severely penalized. Sixty- and ninety-day bills drawn on New Orleans preceded the merchant and his produce to that city, and when he sold, he had to do so at half price. By 1820 corn at Cincinnati was down to 10

cents, wheat to 25 cents, and whiskey would not sell at 15 cents per gallon. Two bushels of wheat would scarcely pay for one pound of coffee; flour, after being hauled sixty miles by wagon, brought \$1.50 a barrel; chickens sold at 1 to 6 cents each.

"Distress is beyond all conception. Sherriff sales occur almost daily." A handsome gig and a valuable horse brought brought \$4.00, an elegant sideboard \$3.00, three beds with bedding, \$3.00. Men, businesses, banks, were all broke. But little specie was to be had; merchants issued small notes--25 cents and lower--payable in dry goods, groceries, or drink. Spanish pistareen (about 17 cents in value) were cut into 6 pieces whose total value was about double that of the original coin. Tavern meals were 25 cents in cut money, \$1.00 in paper. Conditions as portrayed at Vincennes in the winter of 1822 were typical.³⁸

The adverse effect of this depression was further described by Secretary of the Treasury William H. Crawford in his report, State of the Finances, communicated to the Senate on November 24, 1818:

In presenting this estimate of receipts for the year 1819, it is necessary to premise, that the sum to be received from the customs is less than what, from the amount of the outstanding bonds, would, under ordinary circumstances, be received. The amount of the sales of public lands during the last year, and the sum due at this time by the purchasers, would justify a much higher estimate of the receipts from that important branch of revenue, if the most serious difficulty in making payments was not known to exist. The excessive issues of the banks, during the suspension of specie payments, and the great exportation of the precious metals to the East Indies during the present year, have produced a pressure upon them, which has rendered it necessary to contract their discounts for the purpose of withdrawing from circulation a large proportion of their notes. This operation, so oppressive to their debtors, but indispensably necessary to the existence of specie payments, must be continued until gold and silver shall form a just proportion of the circulating currency. In passing through this ordeal, punctuality in the discharge of debts, both to individuals and to the Government, will be considerably impaired; and well founded apprehensions are entertained that, until it is passed, payments in some of the land districts will be greatly diminished.

The extent to which the payments into the Treasury, during the year 1819, will be affected by the general pressure upon by the community, which has been described, and which is the inevitable consequence of the overtrading of the banks, and the exportation of specie to the East Indies, aggravated by the temporary

³⁸Buley, op. cit., pp. 519-522.

failure of the ordinary supply of the precious metals from the Spanish American mines, cannot, at this time, be correctly appreciated.³⁹

Buley, in continuing his discussion of conditions at the time, said:

Hard times furnish ample evidence of the state of affairs in the news of the day. News of recovery is not so noticeable. Recovery is slower and less spectacular than panics and deflation. Gradually losses, bad debts, forfeitures, and inflated values were written off and forgotten. Emigration picked up again, land prices advanced, commodity prices stabilized, and conditions improved. In 1822 land near Fort Defiance brought \$2.50 to \$12.50 per acre and some as high as \$30.⁴⁰

Thus as of March 25, 1822, there were indications that the bottom of the depression had been reached and that while recovery would be slow, there was reason to anticipate better business and economic conditions in the future.

³⁹American State Papers, Class 3, Vol. III, Finance, Report No. 537, State of the Finances, communicated to the Senate, November 24, 1818, p. 275.

⁴⁰Buley, op. cit., p. 526.

SECTION IV

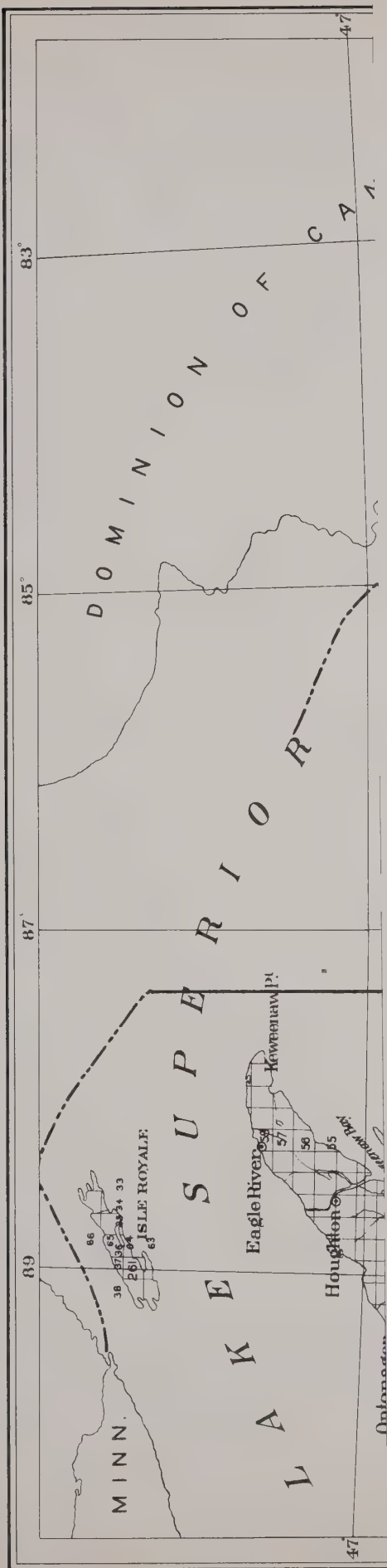
HISTORY OF MICHIGAN

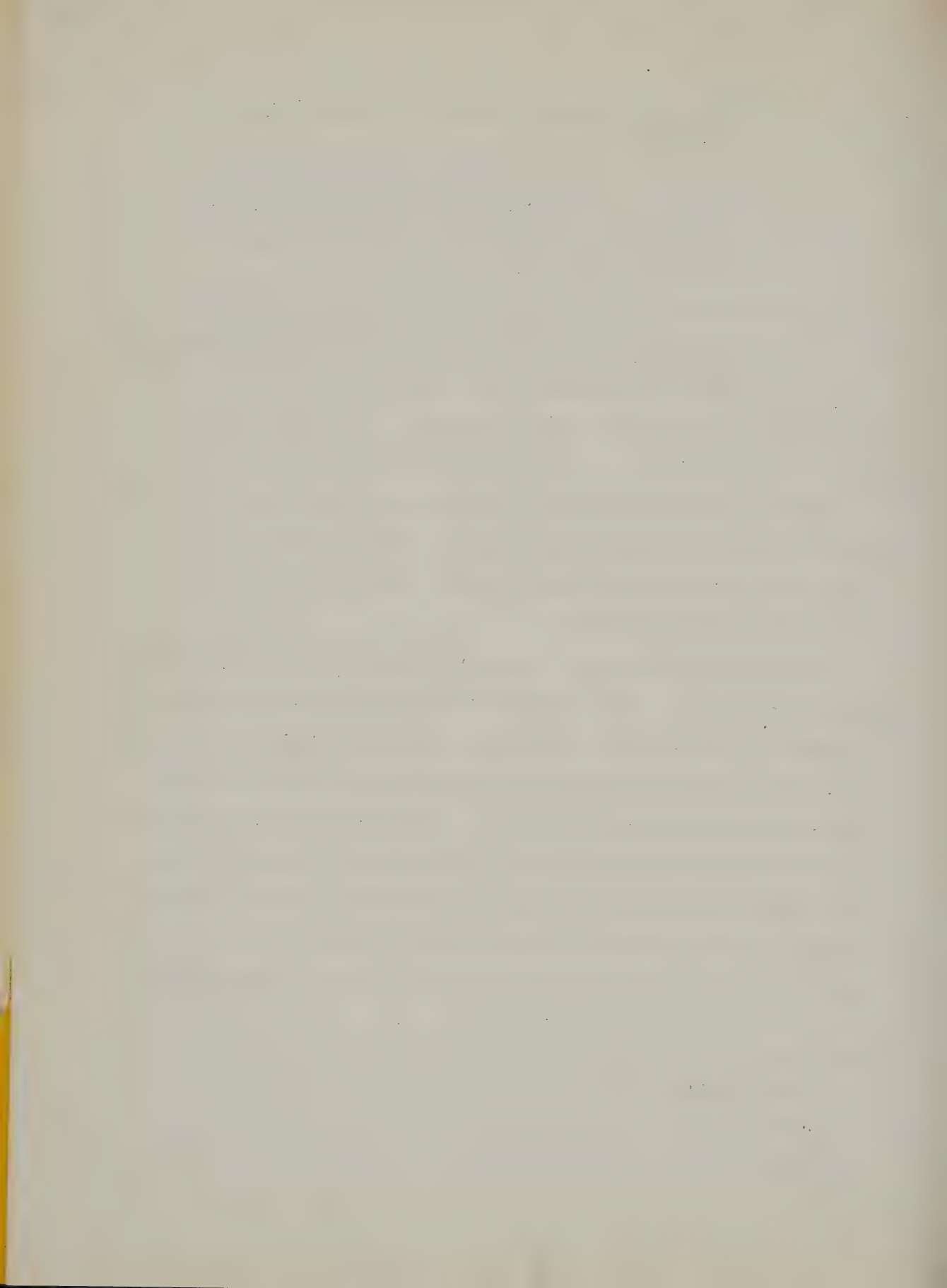
In order to place the development of Michigan in the proper prospective down to the appraisal date of March 25, 1822, for the subject lands, the various treaties to which the claims of Indian title to lands in Michigan Territory and adjacent regions were extinguished prior thereto are listed below. While the listed acreages of the ceded tracts are only estimates contemporaneously made,⁴¹ and may or may not be accurate according to subsequent official surveys, yet for illustrative purposes they disclose there were very large amounts of public lands in Michigan available for sale to the public in 1822. Because of their relatively superior locations in comparison with Area 117, Michigan 1, Indiana, these four tracts, located as they were in southeastern Michigan and northwestern Ohio, would appear to have been far more attractive for settlement and sale than the subject lands. These tracts are described below:

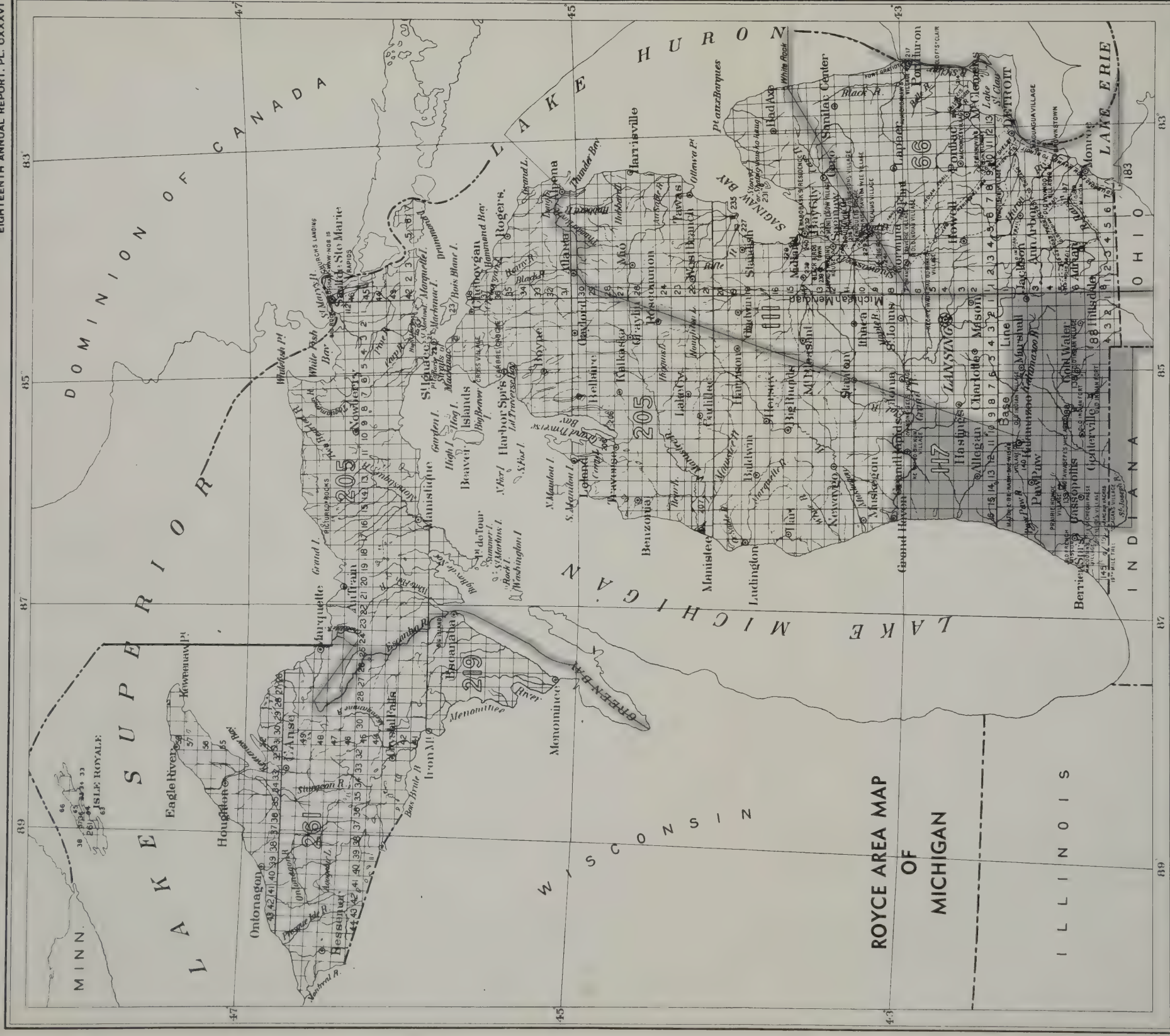
<u>Treaty</u>	<u>Tracts</u>
1. August 3, 1795.	Treaty of Greenville with Chippewa, et al., Indians. A tract of land described as the Post of Detroit and area around Detroit from River Rosine on the south to Lake St. Clair, six miles west of Detroit River and Lake Erie. ⁴² Estimated area, 260,000 acres. The approximate limits of this tract are shown only by

⁴¹Senate Document 323, November 17, 1820, American State Papers, Public Lands, Class XIII, Vol. 3, pp. 461-462.

⁴²Charles C. Royce, Eighteenth Annual Report of the Bureau of American Ethnology, Part 2 (Washington: Government Printing Office, 1899).







miles away, about twice as far as Cincinnati.⁴⁶

Governor William Henry Harrison of Indiana showed more interest in Michigan than Governor St. Clair ever had, for Harrison visited Detroit in May, 1803. Nevertheless, the people were discontented and petitioned Congress to organize a new territory. By the Act of Congress signed by President Thomas Jefferson on January 11, 1805, 2 Stat. 309, Michigan Territory was established. The southern boundary was a line drawn eastward from the southern bend of Lake Michigan, and a line through the middle of the same lake was the western boundary. Only a small portion of the Upper Peninsula was included. According to Section 4 of the Act, the new government was to begin functioning on July 1, 1805, and Detroit was to be its capital.⁴⁷

However, before the time came for the new territorial government to function, Detroit suffered a great catastrophe. On June 11, 1805, at about nine o'clock in the morning, a fire started in the stable behind a bakery. By late afternoon all that remained of Detroit was a deep bed of hot embers. Only the old blockhouse near the river and the fort remained intact.

Governor William Hull, the newly-appointed governor, reached Detroit on July 1, 1805, to find only ashes where he had expected to see the new capital.⁴⁸ He had a difficult position to fill. As a matter of fact, he held four positions; viz., he was the chief executive officer of the territory, with the judges he was a member of the legislature, he was commander-in-chief of the territorial militia, and he was Superintendent of Indian Affairs.

⁴⁶Bald, op. cit., pp. 105-106.

⁴⁷Ibid., p. 106.

⁴⁸Ibid., p. 108.

Local conditions made his multiple tasks even more difficult.

The population of Michigan increased slowly. In 1800 it was only 3,106 and in 1805 it was not much larger.⁴⁹ Aside from the opportunities for officeholders, a few lawyers, merchants, and artisans, there was slight attraction in the territory for Americans. In 1800 nearly all who went westward wanted land, and there was practically none available in Michigan. Only a strip six miles wide from the River Raisin to the St. Clair River and a small area at Mackinac (Tract 21) had been ceded by the Indians in the Treaty of August 3, 1795, at Greenville, and even these had not been surveyed and offered for sale in 1800. See page 31.

Americans hesitated to buy farms from the French and British inhabitants around Detroit because the titles to their land had not been recognized by the United States. In 1804 Frederick Bates and George Hoffman, acting in accordance with a law of Congress, had begun to take evidence of ownership from the inhabitants up and down the river. When they discovered that few persons had deeds to their farms, Congress required them to show only that they had possessed improved land before July 1, 1796. Finally, in 1807, Congress confirmed the decisions of Bates and Hoffman by granting titles to six claimants in Michigan Territory. Others were granted in Michigan during the succeeding years in the present Wayne County, Monroe County, Washtenaw County, on Mackinac Island, and at Sault Sainte Marie.⁵⁰

After some delay Governor Hull finally assembled chiefs of the Ottawa, Chippewa, Wyandotte, and Potawatomi Nations at Detroit, where on November 17, 1807, they signed a treaty ceding to the United States their claimed interests

⁴⁹Ibid., p. 110.

⁵⁰Ibid., p. 111.

in a large area in southeastern Michigan and northern Ohio. (Royce Area 66, Michigan 1, Ohio; see page 32.)

After the close of the War of 1812 time was required to make the necessary adjustments of the problems created by that conflict. As the treaty ending the war had provided for the return of all conquered territory, Fort Malden located across the Detroit River in Canada was delivered to the British on July 1, 1815, and American troops under Colonel Anthony H. Butler occupied Mackinac Island (formerly called Michilimackinac) in the Straits of Mackinac on the 18th of the same month.⁵¹

In 1814 General Lewis Cass, aide-de-camp to General William Hull during the War of 1812, returned to Michigan as Governor of the Territory. He was eager to promote the development of this region. The population was small, being only 4,762 in 1810.⁵² Governor Cass well knew that settlers must be attracted to the region if its natural resources were to be developed. The War of 1812 had drawn some attention to Michigan, a few soldiers who had served there having returned after the cessation of hostilities. Many others might soon have come to Michigan Territory if Edward Tiffin, Surveyor-General of the United States for the Lands Northwest of the Ohio River, had not given Michigan lands an unfavorable reputation in his report of November 30, 1815, particularly as to their unfitness for settlement.⁵³

On September 29, 1817, Governor Lewis Cass negotiated at the Rapids of the Miami River a treaty with various Indian tribes covering a small tract along the southern border of Michigan Territory, shown on Royce's maps,

⁵¹Ibid., p. 142.

⁵²Twelfth Census, op. cit.

⁵³American State Papers, Public Lands, Vol. III, Tiffin to Meigs November 30, 1815, pp. 164-165.

Area 88, Michigan 1, Ohio, estimated at 430,000 acres, of which approximately 230,000 lay in what is now Michigan and 200,000 acres in northwestern Ohio. See page 31. Again, on September 24, 1819, at Saginaw, Governor Cass extinguished the claims of Indian title to Royce Area 111, Michigan 1, a larger area located west and north of the land to which the Indian title had been extinguished by Governor Hull in 1807. See page 32. Beginning at a point on the western boundary of Area 66, six miles below its base, a line was run directly west almost to the Kalamazoo River. From this point the line ran in a northeasterly direction to the source of Thunder Bay River, thence down the river to Lake Huron. The area of this tract was contemporaneously estimated at 4,321,000 acres. The table on pages 31 and 32 shows the approximate areas of these cessions, less the appraiser's estimate of the acreages lying outside of Michigan Territory.

	Acres	
Royce Area 66, Michigan 1, Ohio.	7,862,400	
Less estimated land in Ohio.	<u>460,000</u>	7,402,400
Royce Area 88, Michigan 1, Ohio.	430,000	
Less estimated land in Ohio.	<u>200,000</u>	230,000
Royce Area 111 in Michigan		<u>4,321,300</u>
Total Ceded Acreage in Michigan in 1821		11,953,700

Thus, as of March 25, 1822, there were approximately 11,953,700 acres of land in eastern and southeastern Michigan to which the Indian title had been extinguished.

Governor Cass had assailed the report dated November 30, 1815, by Edward Tiffin, Surveyor-General of the United States for Lands Northwest of the Ohio River, as untrue, and at his insistence, surveying of Michigan lands was resumed in 1816. It was soon evident that in addition to the swamps and sandy patches reported there were some great forests and rich soils in Michigan.

In 1818 a large area had been surveyed, a land office had been opened, and lands were offered for sale starting in July of 1818. The first sale was recorded as July 7, 1818. These land offerings are specifically set out subsequently in this report. See Table 7, page 214.

Michigan Territory acquired a great addition to its area in 1818. On the admission of Illinois to the Federal Union under the Act of April 18, 1818, 3 Stat. 428, Congress attached all the land remaining in the old Northwest Territory north of the new State of Illinois and west of Lake Michigan and Lake Superior to Michigan Territory. The area thus enlarged included the present States of Michigan, Wisconsin, and Minnesota.

Governor Cass was eager to explore this vast new territory.⁵⁴ His trip for this purpose is described in great detail in Henry R. Schoolcraft's Narrative Journal of Travels.⁵⁵ He had an urgent curiosity to see for himself its natural resources. Besides, as Superintendent of Indian Affairs, he wanted to meet the northern Indians, warn them to keep the peace, and make arrangements for further cessions. He set out from Detroit on May 25, 1820, in three large canoes and in three weeks had reached Mackinac Island. From there he proceeded to Sault Sainte Marie where he asserted the claims of the United States to a tract of land which the Indians had previously granted at the Treaty of Greenville in 1795. Following this, the expedition continued into Lake Superior and along the south shore.⁵⁶ The areas explored were several hundred miles to the north and west of the subject lands.

At the western extremity of Lake Superior the party ascended the St.

⁵⁴Bald, op. cit., p. 147.

⁵⁵Henry R. Schoolcraft, Narrative Journal of Travels, Mentor L. Williams, Editor (East Lansing: Michigan State College Press, 1953).

⁵⁶Ibid.

Louis River, then, after a portage, reached the Mississippi which they ascended for some 350 miles. Finding navigation more and more difficult and the summer nearly gone, Cass turned back and set out down the Mississippi, bound for Detroit. The party stopped briefly at Fort Snelling near present Minneapolis, Minnesota, and, later, at Prairie du Chien, then took the Wisconsin River, portaged to the Fox River, and arrived at Green Bay (Wisconsin).

Several of the men of the exploration party at that point were sent to examine the shores of Green Bay and of Lake Michigan as far as the Straits of Mackinac. Cass and the others proceeded by canoe along the western coast of Lake Michigan to Fort Dearborn, which is now Chicago. In 1820 Chicago was found to be a village of 10 to 12 houses and a population of approximately 60 people. A part of the party continued around the southern bend of the lake and along the eastern shore by canoe to complete the topographical and geological survey. Governor Cass set out on horseback and returned from Fort Dearborn to Detroit over the old Sauk Trail, later referred to as the Chicago Trail. He was back at his starting place after having traveled 4,200 miles, but he did not explore the interior of Michigan Territory.⁵⁷

The Government published a report of this exploration trip which attracted much attention to Michigan Territory. Cass had shown that the way was open, and his geologist had revealed that there were traces of iron and copper in the Upper Peninsula.⁵⁸

It is significant in the consideration of Area 117 that in the extensive notes and comments on this trip there is no mention of the interior of the

⁵⁷Ibid.

⁵⁸Bald, op. cit., p. 150.

Lower Peninsula of Michigan and the trip overland by Governor Cass and a part of the expedition from Chicago to Detroit through southern Michigan and Area 117 received no comment, and nothing was said as to what Governor Cass and his party may have noted on this trip.

Although by 1821 the claims of Indian title to nearly all of the eastern half of the Lower Peninsula of Michigan had been extinguished, Governor Cass was anxious to clear the title to additional land in that territory. By the Treaty of August 29, 1821, at Chicago with the Chippewas, Ottawas, and Potawatomi, he extinguished for the United States the claims of Indian title to the region south of the Grand River excepting the extreme southwest triangle bounded on the east by the St. Joseph River. This cession comprises the subject lands and is shown on Plate 1, page 5, and Plate 3, page 33, referred to as Royce Area 117, Michigan 1, Indiana. The remainder of the Lower Peninsula above the Grand River and all of the Upper Peninsula was later ceded to the United States by the Ottawa and Chippewa Indians under the Treaty of March 28, 1836. This latter tract is shown on Royce's maps as Area 205, Michigan 1.

Even though by the 1821 treaty at Chicago the claims of Indian title had been extinguished to the subject lands, it did not follow that the Indians were to be removed immediately from the land. By the terms of Article 2 of the 1821 treaty, five tracts within the ceded area (two of six miles square, one of four miles square, one of three miles square, and one undetermined) were reserved for the use of the Indians. In addition to these reserves, under Article 3 there were 29 grants of land ranging from one-half section to two sections made to various important members of the tribes signing the treaty of 1821. These grants and reserves were in different parts of Area 117, principally on the St. Joseph River near Lake Michigan, the Elkhart

River, and the Grand River. Article 5 of the 1821 treaty also granted the Ottawa, Chippewa, and Potawatomi Indians the right to hunt on the subject lands as long as they remained the property of the United States.⁵⁹

These provisions of the treaty meant that the Indians, or a considerable part of them, were privileged to remain indefinitely within portions of Area 117 and had the unrestricted right to roam or hunt over the entire area until it was sold by the United States.

The slow growth of population in the Territory of Michigan had been previously mentioned. The population in 1820 was only 8,896.⁶⁰ This represented a total increase of only 4,134 for the previous ten years.⁶¹ However, of this 8,896 population portions were in parts of Michigan Territory far removed in distance from Detroit on Lake Erie as follows: (See Schedule 1, page 42.)

<u>Locations</u>	<u>Population</u>
Michillimackinac County (all of northern Michigan).	819
Brown County (now eastern Wisconsin)	952
Crawford County (western Wisconsin).	<u>492</u>
	2,263

Thus in 1820 the population within Area 66, Michigan 1, around Detroit and Lake Erie, was only about 6,630. Up to that time the courses of emigration from the east to west had flowed past Michigan far to the south into southern Ohio, Indiana, and Illinois. Subsequent events showed that Michigan was eventually settled by emigrants from New England and New York State who came along the Mohawk Trail or the Erie Canal to Buffalo and then west by boat.

⁵⁹American State Papers, Vol. II, Senate Document 176, pp. 257-259; Royce, op. cit.; and 7 Stat. 218, Article 5.

⁶⁰Twelfth Census, op. cit.

⁶¹Ibid.



AGGREGATE amount of each description of persons within the TERRITORY OF MICHIGAN, in the year one thousand eight hundred and twenty.

NAMES OF THE COUNTY, PARISH, TOWNSHIP, TOWN, OR CITY.	FREE WHITE MALES						FREE WHITE FEMALES					Foreigners not naturalized.	Number of persons engaged in Agriculture.	Number of persons engaged in Commerce.	Number of persons engaged in Manufactures.	SLAVES								FREE COLORED PERSONS.										All other persons except Indians not taxed.	Total amount in each county, parish, town- ship, town, or city.
																MALES				FEMALES				MALES					FEMALES						
	Free white males under ten years.	Free white males of ten and under sixteen.	Free white males between sixteen and eighteen.	Free white males of sixteen and under twenty-six, including heads of families.	Free white males of twenty-six and under forty-five, including heads of families.	Free white males of forty-five and upwards, including heads of families.	Free white females under ten years of age.	Free white females of ten and under sixteen.	Free white females of sixteen and under twenty-six, including heads of families.	Free white females of twenty-six and under forty-five, including heads of families.	Free white females of forty-five and upwards, including heads of families.					Males under fourteen years.	Males of fourteen and under twenty-six.	Males of twenty-six and under forty-five.	Males of forty-five and upwards.	Females under fourteen.	Females of fourteen and under twenty-six.	Females of twenty-six and under forty-five.	Females of forty-five and upwards.	Males under fourteen years.	Males of fourteen and under twenty-six.	Males of twenty-six and under forty-five.	Males of forty-five and upwards.	Females under fourteen years.	Females of fourteen and under twenty-six.	Females of twenty-six and under forty-five.	Females of forty-five and upwards.				
	to 10	to 16	16 to 18	16 to 26	to 45	45, &c.	to 10	to 16	to 26	to 45	45, &c.					to 14	to 26	to 45	45, &c.	to 14	to 26	to 45	45, &c.	to 16	to 26	to 45	45, &c.	to 14	to 26	to 45	45, &c.				
County of Wayne, exclusive of Detroit	361	158	36	224	230	178	315	155	197	170	98	39	451	5	46	.	.	.	.	.	.	.	.	11	10	10	6	7	7	5	10	.	2,152		
City of Detroit	167	98	20	206	339	57	156	78	109	116	29	16	22	32	34	.	.	.	.	.	.	.	.	13	16	11	1	9	8	7	2	.	1,422		
County of Macomb	166	62	18	63	122	52	169	68	88	80	26	22	214	1	24	.	.	.	.	.	.	.	.	.	.	2	.	.	.	.	.	.	898		
County of Oakland	48	24	10	49	59	19	45	18	25	20	14	2	117	27	2	.	.	.	.	.	.	.	.	3	2	1	.	2	.	1	.	.	530		
County of Michillimackinac	61	18	22	251	261	69	65	26	28	30	5	324	34	244	11	.	.	.	.	.	.	.	.	.	.	2	2	.	.	1	.	.	819		
County of Brown	64	24	11	267	377	53	67	21	34	37	7	62	60	16	10	.	.	.	.	.	.	.	.	.	.	1	.	.	.	.	.	.	952		
County of Crawford	37	21	9	84	69	32	45	15	24	13	5	101	71	58	29	.	.	.	.	.	.	.	.	4	3	.	.	2	5	1	1	131	492		
County of Monroe	316	154	26	190	204	149	268	144	187	129	82	90	499	9	40	.	.	.	.	.	.	.	.	4	1	2	.	.	.	1	.	.	1,831		
	1,220	559	152	1,334	1,661	609	1,130	525	692	595	266	656	1,468	392	196	.	.	.	.	.	.	.	.	35	32	27	11	20	20	16	15	131	8,896		

MARSHAL'S OFFICE, DETROIT, TERRITORY OF MICHIGAN.

Stated by

THOMAS ROWLAND, Marshal of the Territory of Michigan:

SCHEDULE 1

Source: Census for 1820, published by authority of an Act of Congress, under the direction of the Secretary of State (Washington: Gales & Seaton, 1821).



Thus in 1822 it would have been apparent to a prospective purchaser that means of transportation must of a necessity be vastly improved before settlers would be attracted to Michigan Territory and in particular to the subject lands, heretofore described as Area 117, Michigan 1, Indiana.

Conclusions re Development of Michigan Territory
to March 25, 1822

There had been fur-trading posts in what later became Michigan prior to 1763. These were located hundreds of miles north of Area 117 at Michilimackinac at the Straits between the Upper and Lower Peninsular of Michigan, at Sault Sainte Marie even farther north, and to the east at Detroit. However, by 1800 these trading posts, none of which were close to subject lands, had not developed into towns of any consequence. In fact, the first census to show a population was in 1810 when it was recorded at 4,762. By 1820 it was only 8,896.⁶²

From 1800 to 1820 growth of the population of Michigan Territory was very slow. Most of it, consisting of 6,630, was centered to the east of subject lands around Detroit and the settlements along the Raisin River in southeastern Michigan. Governor Cass had worked hard to increase the growth of the territory and to have it opened for settlement, but his efforts up to March 25, 1822, had not produced appreciable results. As of the 1821-1822 period Michigan Territory was still an undeveloped wilderness with a history of extremely slow progress toward settlement and development.

⁶²Ibid.

SECTION V

LAND POLICIES AND DEVELOPMENTS

LARGE LAND SALES FOR THE 1748-1800 PERIOD

Ohio and New York

At the end of the Revolutionary War in 1783 and with the adoption of the Articles of the Confederation on March 1, 1781, the proceeds from the sale of western lands appeared to be the principal source of anticipated revenue for extinguishing the debts of the new Federal Government. The 13 original colonies, the new states, and the Federal Government were each practically bankrupt, and the dreams of great revenues from the sale of the vast domain westward from the Alleghenies to the Mississippi River was a bright financial star in the contemporary estimates of the statesmen and other officials of the times.

Before these vast areas could become a source of revenue to the new nation, they first had to become the property of the Federal Government, and this was a major bone of contention during the early days of the formation of the original Confederation of States. The smaller states of the north did not have the legitimate claims to such vast western areas as did the central and southern states, and consequently they proposed that the western lands claimed by the other states be ceded to the Confederation for the benefit of the United States as a whole. This controversy was a topic of debate and negotiation for years after the Revolution, but all states finally agreed on



the policy. New York relinquished her claims to the western lands on March 1, 1781, followed by Virginia on March 1, 1784, Massachusetts on April 18, 1785, and Connecticut on September 14, 1786.⁶³ The final Articles of Agreement and Cession between Georgia and the United States were not ratified until June 16, 1802.⁶⁴

Speculation in new lands did not begin until after the New England colonies had become established. The early French were essentially fur traders and had no interest in the land as such. The Christian missionaries made their life among the Indians and required ground for their missions only. The colonies were originally conceived as trading centers to generate commerce for the mother country, but in general the colonists as individuals were seeking freedom rather than wealth. The original charters granted by the Kings of England were more for the purpose of political control of the territory than for the value of the land granted, but as the colonies became established and wealth began to accumulate, the prospect of great wealth from the subdivision and sale of land developed in the minds of some. To the original colonists there seemed to be no value in land because the supply was so vast, and their prime concern was to wrest an existence from the forest in which they lived. As the colonies grew and families expanded, the urge for land developed. The land was still the property of the King or his grantees, and it was difficult for the little man to acquire ownership of a parcel suitable to his needs. This was the beginning of the interest in acquiring large tracts for subdivision into smaller units. The hope of

⁶³Journals of American Congress (1823), Vol. 4, pp. 342-3, 508, 520-4, 561, 564.

⁶⁴Payson Jackson Treat, The National Land System 1785-1820 (New York: E. B. Treat & Company, 1910), p. 14.

attaining wealth through the developments of large tracts built up pressure on colonies and King for charters and grants. The first large grant of land was in 1661 by the colony of Massachusetts to a group of individuals for a large tract in the present State of Maine at a price of 400 pounds. This was known as the "Kennebec Purchase," but no effort was made to develop this until 1753.⁶⁵

The first definite effort to acquire a large tract of western land was in 1748 when a group of Virginians, calling themselves "The Ohio Company," (not to be confused with the later Ohio Company) obtained from the Colonial Government of Virginia a grant of 500,000 acres west of the Alleghenies adjacent to Virginia. The next year another group of Virginians received a grant of 800,000 acres nearby signed by both the Governor and the Council of Virginia.⁶⁶ However, it was some time before a program of settlement was worked out for the disposition of these lands, and there was no indication that any pattern of sales was established. Therefore, these grants are of limited interest and of no concern in the valuation of Area 117, Michigan 1, Indiana.

After the Revolution and with the ultimate establishment of the ownership of the western lands in the new nation by the quit claim cession of Connecticut in 1786 and final ratification of the Georgia cession, the problem presented itself of how best to dispose of them to produce revenue for the bankrupt Federal Government. There were two theories for disposal of the Public Domain--the Southern system, which involved a grant by warrant of unappropriated land to be located as the grantee wished, and the New

⁶⁵A. M. Sakolski, The Great American Land Bubble (New York and London: Harper & Brothers, 1932), p. 2.

⁶⁶*Ibid.*, pp. 3-4.

England system which was a system of prior surveys by township. The latter method prevailed in our present system of land survey.⁶⁷ The first Land Ordinance was passed by the Continental Congress on May 20, 1785. It authorized a survey of the lands of the Northwest Territory, dividing it into townships of six miles square, with subdivisions to contain 36 sections of 640 acres each. Except for Sections 8, 11, 26, and 29 which were reserved to the Government for future sale, the lands were to be sold at \$1.00 per acre for sections of 640 acres, payable either in specie or certificates of the public debt. Section 16 was reserved out of each township for schools.⁶⁸

The Ohio Company, 1787

The first of the development companies seeking to acquire western lands from the new Government was the Ohio Company in 1787. It originally received a grant of 1,500,000 acres in Ohio. The agreed price of the land was that fixed in the Land Ordinance of 1785, one dollar per acre, with an allowance of one-third of a dollar for bad land and incidental charges. Thus, the basic price was reduced to 66-2/3 cents per acre. Payment was permitted, as provided in the 1785 Land Ordinance; viz., in government certificates of indebtedness which were then worth about 12 cents on the dollar in specie, so the actual price was only about eight or nine cents per acre. A payment of \$500,000 was to be made with the signing of the contract, another \$500,000 upon completion of the survey, and the balance in six equal payments.⁶⁹ The Ohio Company made its first payment but was unable to continue its payments. It was finally granted a total of 964,285 acres for the payment of

⁶⁷Treat, op. cit., pp. 16-26.

⁶⁸XXVIII Journals of the Continental Congress, pp. 375-381.

⁶⁹Treat, op. cit., pp. 50-52.

\$500,000 that had been made in certificates of the public indebtedness.⁷⁰

The Symmes Purchase, 1788

In 1788 John Cleve Symmes of New Jersey obtained from the Government 1,000,000 acres in Ohio at a price of 66-2/3 cents per acre, payable in certificates of public indebtedness. The boundaries specified did not contain the area estimated, and he was given patents to only 248,540 acres, for which the Government received \$70,455 in public debt certificates.⁷¹

Historians who have made a study of the matter agree that based on the depreciated values in terms of specie of land warrants and certificates purchased of the public debt, these Ohio lands cost the Ohio Company in 1787 and John Cleve Symmes between eight and thirteen cents per acre.⁷²

The Genesee Lands, 1788

While these sales of western lands by the Federal Government were being made, other sales by several of the original states to private groups were also consummated. At the end of the Revolutionary War there was still a controversy between Connecticut, Massachusetts, and New York as to the ownership of western New York. In December, 1786, New York, in return for political authority over the disputed territory, conveyed to Massachusetts title to that part of New York State lying west of a line from the Pennsylvania border north through Seneca Lake to Lake Ontario, containing more than 6,000,000 acres. Massachusetts thereby became the owner of a vast tract of western land familiarly known as the Genesee lands, subject, however, to the

⁷⁰Senate Document 323, op. cit.

⁷¹Ibid.

⁷²Sakolski, op. cit., pp. 104-105.

extinguishment of claims of Indian title. In April, 1788, Oliver Phelps and Nathaniel Gorham made an offer which was accepted to purchase the entire tract for \$1,000,000, payable in Massachusetts consolidated scrip, then selling for 30% of its face value. Payment was to be made in three annual installments, the purchaser to extinguish the Indian title.⁷³

In July, 1788, Phelps and Gorham next extinguished the claims of Indian title for an undisclosed sum to the easterly 2,600,000 acres. They made their first payment to the State of Massachusetts and title to the 2,600,000 acres was conveyed to them. The value of Massachusetts scrip rose rapidly, and as they were unable to complete the purchase, Phelps and Gorham relinquished the westerly two-thirds of their original purchase.⁷⁴ But the initial payment of \$333,333 in scrip worth 30% of its face value indicates a cost of \$100,000 for this tract, or approximately 3.85 cents per acre. Robert Morris subsequently bought the area relinquished by Phelps and Gorham from the State of Massachusetts. Phelps was able to dispose of a large portion of his holdings, but was finally left with 1,200,000 acres which Robert Morris purchased from him for 30,000 pounds in Massachusetts currency in November of 1790. This sum amounted to about \$133,000, or about 11 cents per acre. In March of 1791 Robert Morris and others purchased the remaining two-thirds of the original Massachusetts tract mentioned above, being in all approximately 4,000,000 acres, for 45,000 pounds in Massachusetts currency, then valued at about \$200,000, which meant a purchase price of about five cents per acre. Morris' associates later bought from him about 700,000 acres of this tract which originally contained approximately 4,000,000 acres, leaving Morris with

⁷³Ibid., p. 55.

⁷⁴Ibid.

approximately 3,300,000 acres.⁷⁵

In 1791 Morris resold the 1,200,000 acres purchased from Phelps and Gorham to Sir William Pulteney and his associates for 75,000 pounds, valued at \$333,000, or about 28 cents per acre, giving him a profit of approximately 250%⁷⁶ on his original purchase.

Morris set about at once to dispose of the western portion of the Genesee tract, and in 1792 Theophile Gazenove, as agent for a group of Dutch bankers, contracted to purchase from him 1,500,000 acres of the westerly portion for 112,500 pounds sterling, cash. Morris was to survey the land and extinguish the Indian title. In the meantime, his son in London had sold the remaining 1,500,000 acres of the Genesee lands to the Dutch bankers. It took Morris some time to extinguish the Indian title, which he accomplished for an undetermined amount, but not until 1797.⁷⁷

The Holland Land Company, 1793-1836

Paul Demund Evans, in his book, The Holland Land Company, goes a bit more into detail as to these transactions. He states that the Holland bankers purchased 1,500,000 acres at a price of \$550,000, or 37 cents per acre, and 1,800,000 acres at \$515,000, or 28 cents per acre. Since Morris paid approximately five cents per acre for this land, or \$165,000, his profit was approximately \$900,000. In 1793 they formed a company and sold shares in approximately 2,600,000 acres of land. Interest was 5 to 5-1/2% per annum, and the shares were priced at \$395. Evans writes that the Dutch bankers expended a total of \$1,580,000 and sold \$2,660,000 in shares, thus realizing a profit of over

⁷⁵Ibid., pp. 55-59.

⁷⁶Ibid., p. 59.

⁷⁷Ibid., pp. 61-63.

a million dollars in the two transactions, a profit of about 170%, and they still held some land.⁷⁸

These properties were then subdivided into tracts and various programs were set up to sell the lands, some at retail and some wholesale.

The Dutch employed various programs to dispose of their lands, but sales were small compared to the total acreage of lands involved. In 1820 it was estimated that 1,750,000 acres remained unsold. Much of the land sold was on purchase contracts, or credit terms, and leases, and there was dissatisfaction among the settlers over the excessive burden of debt they had to carry.⁷⁹

Various efforts were made from time to time to dispose of the holdings, and various tracts were disposed of to different groups who ultimately liquidated the purchase contracts. Finally, in 1836 the Holland Land Company was completely eliminated.⁸⁰

It is difficult to accurately depict the history of the Holland Land Company development during the 1792-1836 period of its existence because it was such a far-flung enterprise. However, it is obvious that even under the favorable terms that were offered by these companies, the sales within and the settlement of the Genesee tract in western New York was a long-time process.

A. M. Sakolski in The Great American Land Bubble at the beginning of the chapter dealing with the Holland Land Companies has made the following statement:

⁷⁸Paul Demund Evans, The Holland Land Company (Buffalo: Buffalo Historical Society Publications, 1924), pp. 26-28.

⁷⁹Sakolski, op. cit., p. 83.

⁸⁰Ibid., pp. 82-86.

"If the whole Holland Purchase was brought to the condition of a garden, capable of yielding agricultural products to any given extent, it might be the means of affording a very comfortable support to the inhabitants, but would never enable them to pay for their farms, until capital is invested in rearing towns and manufacturies to purchase and consume the surplus products, and thus react upon the value of the land."

The foregoing statement was made by Benjamin Barton, in February, 1827, at a convention of delegates from the several counties comprising the Holland Purchase to consider "the relations subsisting between the Holland Company and the settlers on the said Purchase, and to propose some remedy by which the settlers may be alleviated." It illustrates correctly the difficulty in the way of filling up rapidly large areas of unoccupied waste lands with settlers whose single occupation is agricultural production. It points out, moreover, the desirability, if not the necessity, of the investment of large sums (in addition to the primary cost of the soil) by the owners of undeveloped sections, to foster and encourage the growth of the country.⁸¹

The Connecticut Western Reserve, 1786

In 1786 Connecticut legislators resolved to sell the land in the Connecticut Western Reserve lying east of the Cuyahoga River at 50 cents an acre. This area in general surrounds the present city of Cleveland, Ohio. This was a tract retained by Connecticut from its relinquishment of all other of her claims to western lands made to the Federal Government on September 14, 1786. The Reserve consisted of about 3,500,000 acres. Only one sale of 24,000 acres along the Mahoning River in 1790 was made under this sales program. On the other hand, in 1792 certain Connecticut citizens were granted 500,000 acres along the western end of the Connecticut Western Reserve in Ohio, familiarly known as the Firelands, to compensate them for damage to their property received from the British during the Revolution. In 1793 the State of Connecticut tried again to sell the remainder of the lands of the

⁸¹Ibid., p. 73.

Reserve, but met with no success.⁸²

In 1795 a new eight-man committee was appointed by the Connecticut Legislature to sell if possible in one parcel the remainder of the Connecticut Western Reserve, then estimated at about 3,000,000 acres, for not less than \$1,000,000, unsurveyed and unmeasured. By this time the availability of the tract for purchase was widely known throughout the country, and as a result there were several bidders. It was sold in 1795 to a group of 35 individuals, all citizens of Connecticut, known associatively as the Connecticut Land Company, who gave separate personal bonds for their contractual obligations. The purchase price was fixed at \$1,200,000. It is here important to observe that several other groups submitted bids for the same property. Included in the successful group were several individuals who had previous experience in land speculations. The most prominent land developer among them was Oliver Phelps, a former owner-developer of the Genesee lands in western New York.⁸³ Particular attention is directed to this sale of the Connecticut Western Reserve in 1795, as it represents the case of a large landowner in the corporate person of the State of Connecticut which had tried for some time to dispose of a large tract along the shores of Lake Erie in Ohio. The purchaser was a group of business men with prior experience in land development in the United States. Moreover, there were several other bidders for the same lands, and the sale in 1795 was a competitive one.

This 3,000,000-acre tract of the Connecticut Western Reserve in Ohio was ultimately subdivided and disposed of by the Connecticut Land Company,

⁸²Western Reserve Historical Society Publications, Tracts 32 and 96; and Aaron Burke, The Old Northwest (New York: Townsend MacCoun, Publishers, 1888), pp. 369-70.

⁸³Sakolski, op. cit., pp. 120-122.

some in large tracts, some at retail. Twelve of the 35 original purchasers of the Connecticut Western Reserve subsequently formed the Erie Land Company in order to sell off their holdings. Apparently their lands sold and they prospered. This latter company continued until 1812, three years after the dissolution of the original Connecticut Land Company.⁸⁴

Subsequent to its acquisition in 1795 of the 3,000,000-acre tract in Ohio, the Connecticut Land Company set up a program for the subdivision and resale of the land in small tracts. The standard price was \$1.00 per acre, which was increased as migration progressed. The company built roads within the area and offered lands free to those who would erect saw or grist mills and other facilities necessary to the further development of the lands. Also, other benefits were offered by the company as inducements to settlers. All these promotional enterprises and programs constituted an additional financial burden to the original purchasers who were assessed proportionately for such expenses.⁸⁵

Georgia

The First and Second Yazoo Purchases

Georgia ratified the Constitution in 1788. A part of the basis for the ratification by the other and smaller colonies was the cession to the United States, then operating under the Articles of Confederation, of large areas in the west to the Mississippi River by the larger colonies; viz., New York, Virginia, Massachusetts, and Connecticut in 1781, 1784, and 1786, respectively. The United States next requested a cession from Georgia of her claims to western lands south of Tennessee to the Mississippi River, as the other states

⁸⁴Western Reserve Historical Society Publications, Tract 96.

⁸⁵Ibid.

had previously done for their land claims north of the Ohio River. Georgia finally consented to make the cession. However, the conditions she laid down were such that the Government at first refused to accept the terms. Thus for a time Georgia continued to claim title to these western lands, consisting of what is now largely the States of Alabama and Mississippi. Since Georgia was bankrupt, there were those who thought that these western lands would provide her with a substantial source of revenue. In 1789 a group of individuals came forward and negotiated with the Georgia Legislature for the purchase of a large tract within this general region, now familiarly known as the First Yazoo Purchase. This attempted land sale by Georgia in 1789 did not become effective as payments for the lands were not made as specified.⁸⁶ Subsequently, in 1795, Georgia, by another act of its legislature, again attempted to dispose of a large tract of these western lands. This second attempted sale by Georgia in 1795 became known as the Second Yazoo Purchase. In 1796 it was also rescinded.⁸⁷

The first unsuccessful Yazoo Purchase in 1789 called for payment to Georgia of \$207,580⁸⁸ for what was then estimated to be 15,500,000 acres,⁸⁹ but later surveys showed the tract actually contained 25,400,000 acres.⁹⁰ Thus this first attempted sale by Georgia in 1789 called for an average price of 1.34 cents per acre, based upon the original estimate of 15,500,000 acres.

⁸⁶American State Papers, Public Lands, Class VIII, Vol. 1, p. 133.

⁸⁷Ibid., pp. 133-134.

⁸⁸Ibid., p. 133.

⁸⁹Thomas Donaldson, The Public Domain, Its History with Statistics (Washington: Government Printing Office, 1884), p. 84.

⁹⁰Charles H. Haskins, "The Yazoo Land Companies," Papers of the American Historical Association, Vol. V (New York: The Knickerbocker Press, 1891), p. 400.

In reality it amounted to only .84 cents per acre if computed on the basis of its actual acreage of 25,400,000 acres. The second attempted Yazoo Purchase in 1795 called for a \$500,000⁹¹ payment. There is presently no accurate estimate of the acreage involved in the second unsuccessful Yazoo Purchase of 1795, but the consensus of opinion indicated the area was thought to contain about 35,000,000 acres, which on this basis would amount to a price of 1.43 cents per acre if the attempted sale had been consummated.

After further negotiations with the Government, Georgia ultimately ceded her claims to western lands to the United States by treaty in 1802. By the terms of this treaty, Georgia ceded to the United States all of her claims to western lands south of the Tennessee border lying west of the present western border of Georgia, extending to the Mississippi River.

These major land transactions are summarized in Table 1, page 58, which shows original sales from the Government, by the states, and resales by private individuals to others.

Although land speculations continued in one form or another in the United States after 1795, investments in huge tracts of undeveloped lands ended with those of the previously mentioned Connecticut Western Reserve and the two attempted Yazoo Purchases. A. M. Sakolski has summed up the end of this early period of wild land speculations as follows:

The wild land speculation in America, which reached its zenith soon after the establishment of the new government under the Constitution, steadily and rapidly declined after 1795. At the beginning of the new century, public interest in land speculation had greatly subsided. The collapse of most of the large land companies, together with the adoption of a national policy to distribute the vast western public domain in small parcels at a nominal price, discouraged private land-jobbing schemes. The popular contempt for land speculators, however, persisted, so that statesmen and financiers for many years thereafter refrained

⁹¹American State Papers, op. cit., p. 133.

from openly associating themselves with wild schemes of land development. In the meantime, also, other fields of speculative endeavor such as commodities and securities had come into vogue. Land speculation, however, was again and again to play its part in the annals of pecuniary avarice and greed in the United States.⁹²

⁹²Sakolski, op. cit., p. 53.

TABLE 1

RECAP OF PRINCIPAL LARGE TRACTS SOLD
FROM THE BEGINNING OF THE
CONFEDERATION TO 1800

Original Sales	
1787 - United States to The Ohio Company (page 47).	964,000 acres approx. 8 or 9¢ per acre
1788 - United States to John Cleves Symmes (page 48).	248,000 acres approx. 8 or 9¢ per acre
1788 - State of Massachusetts to Phelps & Gorham (page 49)	2,600,000 acres approx. 3.85¢ per acre
1791 - State of Massachusetts to Robert Morris (page 49)	4,000,000 acres approx. 5¢ per acre
1795 - State of Connecticut to Connecticut Land Company (page 53).	3,000,000 acres approx. 40¢ per acre
Resales of Large Tracts	
1790 - Phelps and Gorham to Robert Morris--part of above (page 49).	1,200,000 acres approx. 11¢ per acre
1791 - Robert Morris to Sir William Johnston Pulteney--resale of above (page 50).	1,200,000 acres approx. 28¢ per acre
1792 - Robert Morris to a group of Dutch bankers (page 50).	1,500,000 acres approx. 37¢ per acre
1792 - Robert Morris to a group of Dutch bankers (page 50).	1,800,000 acres approx. 28¢ per acre

PUBLIC LAND SALES UNDER 1796, 1800, 1804, AND 1817 STATUTES

By the Act of May 10, 1796, 1 Stat. 464, Congress fixed a minimum price of \$2.00 per acre for public lands. This statute did not effectively solve the problem of disposing of western lands of the United States for purposes of obtaining revenue for the support of the Government. Thereafter, Congress continued to debate the question, and finally this 1796 land law was amended by the Act of May 10, 1800, 2 Stat. 73. This Act established the credit system for the sale of public lands which lasted until 1820. Under this 1800 credit act, all unreserved public lands were offered for sale in sections and half sections, with minimum credit sale price fixed at \$2.00 per acre, one-fourth down, and one-fourth in two, three, and four years, with interest at 6% on all unpaid balances. A deposit of one-twentieth of the purchase price was required at the time of purchase which would be forfeited if the first one-fourth was not paid within 40 days. A discount at the rate of 8% per annum for anticipating any of the last three payments were provided, which was equivalent to a cash price of \$1.64 per acre.⁹³ This Act was also made generally applicable to lands south of Tennessee by the Act of March 3, 1803, 3 Stat. 229, and was amended by the Act of March 26, 1804, 2 Stat. 277, to permit sales of quarter sections, or 160 acres. Later, by the Act of February 22, 1817, 3 Stat. 346, this Act was further amended to permit a limited number of sales of 80-acre tracts. This program applied only to Sections 2, 5, 20, 23, 30, and 33 within each township.

On February 19, 1812, the Senate Committee on Public Lands reported that under the Act of May 18, 1796, Section 4, 1 Stat. 464, by which the public lands of the United States were offered for sale, one-half in sections

⁹³American State Papers, Public Lands, Vol. II, p. 368.

of 640 acres and the other half in quarter townships or tracts of 5,120 acres in size, the sales from May 18, 1796, to May 10, 1800, a four-year period, amounted to only 121,540⁹⁴ acres, or slightly in excess of 30,000 acres annually. The committee went on to comment that the subsequent Act of May 10, 1800, Section 4, 2 Stat. 73, directed that the lands west of the Muskingum River in Ohio, theretofore offered for sale in quarter townships, be divided into half sections, those east of the same river in Ohio into sections, and thereafter so offered for sale. In the four-year period 1800-1804 only 919,603⁹⁵ acres, or about 229,900 acres annually, were sold under the 1800 statute, though such sales represented an increase of more than 700% in comparison with those previously had under the 1796 statute.

Continuing, it was noted that under the subsequent Act of March 26, 1804, 2 Stat. 277, all public lands were directed to be offered for sale in quarter sections or tracts of 160 acres each. For the four years 1804-1808 sales under the 1804 statute amounted to 1,750,308⁹⁶ acres, or 437,577 acres annually, an increase of almost 200% in comparison with those sold in the previous four-year period under the 1804 statute. As a result of these increased sales the Committee on Public Lands reported that they had no hesitation in concluding that the subdivision under the 1804 act of the public lands into smaller tracts of 160 acres before offering them for sale suited the abilities of a greater number of purchasers and that it had been the principal cause of the greatly accelerated sales of the public lands occurring between 1804 and 1808

⁹⁴American State Papers, Public Lands, Vol. 2, Class VIII, p. 439.

⁹⁵Ibid.

⁹⁶Ibid.

in comparison with previous years.⁹⁷

As of February 19, 1812, this same Senate Committee reported that west of the Allegheny Mountains and in the possession and ownership of private individuals, there could not have been less than 30,000,000 acres of uncultivated lands in the various states and territories of the United States, the greater part of which was then in market and could be purchased on equal, if not better, terms than the public lands of the United States.⁹⁸

The Land Ordinance of 1820

The balances unpaid by credit purchasers of public lands under the Act of May 10, 1800, 2 Stat. 73, steadily increased from 1813 to September 30, 1819, when nearly \$10,000,000 became due the United States from purchasers solely within the area of the old Northwest Territory.⁹⁹ The difficulty of collecting the unpaid balances on public lands purchased at the minimum credit price of \$2.00 per acre finally became so great that by the Act of April 24, 1820, 3 Stat. 566, the United States abolished the credit system and in its stead established a minimum cash price of \$1.25 per acre. The 1820 Act further provided that public lands were to be sold in unlimited quantities in either sections, half sections, quarter sections, or one-eighth sections at the option of the purchasers.

Public Land Sales 1796-1820

In his book A History of the Public Land Policies Hibbard cites the total sales and receipts of land from the beginning of sales of the Public Domain

⁹⁷Ibid.

⁹⁸Ibid.

⁹⁹American State Papers, Public Lands, Class XIII, Vol. 3, p. 420.

to June 30, 1820, as 19,399,158.04 acres for the total sum of \$47,689,563.09. These were gross sales before taking into consideration relinquishments. This indicated an average price per acre of \$2.46 and equivalent to an annual disposal rate of 554,260 acres per year for the 35-year period.¹⁰⁰

However, soon after the enactment of the credit statute, it became necessary for Congress to interpose relief to those purchasers on credit of public lands in order to prevent extensive forfeitures resulting from failures in making their regular payments. This relinquishment or forfeiture is graphically illustrated by Hibbard in his next table after the one cited above in which he gives the following figures: Net sales 1796 to June 30, 1820 - 13,647,536.19 acres @ \$27,900,379.29.¹⁰¹ The average price paid per acre dropped to \$2.043 per acre, and the large difference between total sales and net sales reflects a substantial number of forfeitures. Between 1809 and 1819 no less than 11 separate relief acts were passed by Congress for this purpose. These acts are listed below:¹⁰²

<u>Act</u>	<u>Statute</u>	<u>Page</u>
March 2, 1809	2	533
April 30, 1810	2	591
December 12, 1811	2	688
April 23, 1812	2	712
July 6, 1812	2	782
March 3, 1813	2	811
February 19, 1814	3	97
February 4, 1815	3	201
April 24, 1816	3	300
April 18, 1818	3	433
March 3, 1819	3	509

¹⁰⁰Benjamin Horace Hibbard, A History of the Public Land Policies (New York: Peter Smith, 1939), p. 100, Table VIII.

¹⁰¹Ibid., p. 103.

¹⁰²Each of these relief acts is listed at 4 Stat., 259. In all, there were 20 acts passed by Congress for the relief of the credit purchasers of public lands between 1809 and 1832.

By the subsequent Act of April 24, 1820, 3 Stat. 566, the previous minimum credit price of \$2.00 per acre under the 1800 statute was abolished, and in its stead a minimum cash price of \$1.25 per acre was fixed for all unserved public lands. However, this 1820 enactment by Congress did not solve the problems of those credit purchasers who still found themselves unable to meet the burdens of unpaid principal and interest due the United States for public lands previously acquired under the credit Act of May 10, 1800. In order to continue to extend relief, additional relief act legislation was provided by Congress, as listed below:¹⁰³

<u>Act</u>	<u>Statute</u>	<u>Page</u>
March 30, 1820	3	555
March 2, 1821	3	612
April 30, 1822	3	665
March 3, 1823	3	781
May 18, 1824	4	24
May 26, 1824	4	60
May 4, 1826	4	158
May 23, 1828	4	286
July 9, 1832	4	567

In spite of the passage of a total of 19 legislative acts during the 1809-1828 period designed for the relief of purchasers on the credit of public lands in the States of Ohio, Indiana, Illinois, Missouri, Alabama, Mississippi, Louisiana, and Michigan Territory, up to April 21, 1828, a total of 4,168,941.15 acres had been relinquished, which cancelled thereby \$13,778,347.37 in unpaid obligations due the United States.¹⁰⁴ Of the total of 4,168,941.15 acres so relinquished, 3,209,239.63 acres, or about 77%, had been purchased at the minimum credit price of \$2.00 per acre. Fully 58% of the relinquished acreage of 4,168,941.15 acres were located in the States of Illinois, Ohio, Indiana,

¹⁰³Ibid.

¹⁰⁴American State Papers, Public Lands, Vol. V, p. 680.

and Missouri. With only a total acreage of 13,647,536 acres of public lands sold in the entire United States during the 1796-1820 period, the relinquished acreage of 4,168,941.15 acres up to 1828 represented about 30% of all public lands sold during the first 24 years of the operation of the Public Lands System.¹⁰⁵ These figures illustrate clearly the difficulty experienced by purchasers of the public lands at the high price of \$2.00 per acre on credit.

Surveyed Public Land Available for Sale in 1819

On November 16, 1820, the Treasury Department transmitted to the Senate a resume of lands purchased from the Indians, land sold, etc. Included in this submitted was a statement of the total amount of western lands to which the Indian title was extinguished, the amount surveyed, and the amount sold as of September 30, 1819.¹⁰⁶

TABLE 2

TOTAL AMOUNT OF WESTERN LANDS TO WHICH THE INDIAN TITLE WAS EXTINGUISHED, AMOUNT SURVEYED, AND THE AMOUNT SOLD AS OF SEPTEMBER 30, 1819

Total number of acres listed as purchased from the	
Indians	191,978,536
Number of acres surveyed. . . .	72,805,092
Number of acres sold.	18,601,930
Number of acres unsold.	54,203,162

Public Land Sales, 1820-1822

Prior to March 25, 1822, all public land sales in the United States for cash under the Act of April 24, 1820, 3 Stat. 566, were as follows:¹⁰⁷

¹⁰⁵Ibid.

¹⁰⁶Senate Document 323, op. cit.

¹⁰⁷Report of General Land Office, September 30, 1837, p. 3.

TABLE 3

TOTAL SALES OF PUBLIC LANDS 1820-1822
UNDER THE ACT OF APRIL 24, 1820

Year	Acres Offered	Acres Sold	Amount	Average Per Acre	% Sold
1820	8,338,675.94	303,404.09	\$ 424,962.26	\$1.40	
1821	10,919,480.42	781,213.32	1,169,224.98	1.50	
1822	9,602,931.37	801,296.18	1,023,267.83	1.28	
Total	28,861,087.73	1,885,913.59	\$2,617,455.07	\$1.39	6.5%

Summary of Sales, 1820-1822

Acres offered	28,861,087.73
Acres sold	1,885,913.59
Total purchase price	\$2,617,455.07
Average price per acre	\$1.39
Offered lands unsold and available for private entry at \$1.25 per acre as of 1822	26,975,174.19
Percentage sold of offered land	6.5%

Average Per Acre Price, Ohio, Indiana, and Illinois 1820-1822

The average per acre cash sales prices for which public lands were sold in the nearby States of Ohio, Indiana, and Illinois during the 1820-1822 period under the Act of April 24, 1820, 3 Stat. 566, are summarized in Table 4 on the following page:¹⁰⁸

¹⁰⁸ Report of Senate Committee on Public Lands, dated February 24, 1846, p. 16, Schedule C.

TABLE 4

SALES OF LANDS IN OHIO, INDIANA, AND ILLINOIS
AND THE PRICES THEREOF 1800-1822

Year	Acres	Amount	Avg. Price Per Acre
Ohio			
1820	54,293.73	\$ 67,625.75	\$1.2455
1821	114,946.85	150,192.94	1.30
1822	185,172.40	235,550.61	1.27
Indiana			
1820	162,490.82	\$214,533.79	\$1.32
1821	264,578.38	362,197.77	1.37
1822	252,982.34	329,066.71	1.30
Illinois			
1820	6,699.99	\$ 8,707.04	\$1.30
1821	50,382.15	63,568.85	1.26
1822	27,374.11	34,268.80	1.25

SUMMARY AND CONCLUSIONS RE LAND POLICIES AND DEVELOPMENTS

The interest in public lands as a speculative venture did not gain momentum until after the Revolution. Shortly after the establishment of the Continental Congress and the First Land Ordinance of May 20, 1785, speculation in land developed rapidly, but by the beginning of the nineteenth century the bubble had burst and the dreams of vast profits in land had become dissipated.

The Federal land sales program had its difficulties from the beginning in 1785. Thereafter it went through a long period of trial and error. By 1820 it appeared that most settlers were satisfied with 80 acres as a basic homestead, and by then the Congress had decided that the credit system was not workable. Accordingly, it abolished the credit sales, reduced the minimum cash price of land to \$1.25 per acre by the Act of April 24, 1820, 3 Stat. 566. As of 1822, while there was a vast area of public lands freed of the claims of Indian title as far west as Missouri and Arkansas, and approximately 72 million acres had been surveyed and part offered for sale, yet only some 18 million acres, or approximately one-fourth of what had been surveyed, had been sold in the 35 years since 1785. For the immediate period 1820-1822 only 6.5% of the public lands offered by the Federal Government had been sold at the average price of \$1.39 per acre.

With 26,861,087.73 acres available in the United States for private entry at \$1.25 per acre in 1822, it would be difficult to conclude that any but choice lands would sell for more than the minimum price of \$1.25 per acre as fixed by the Act of April 24, 1820, 3 Stat. 566.

The attitude of a prospective purchaser of the 4,114,330 acres of Area 117 as of March 25, 1822, is probably best expressed in the language of the Senate Committee on public lands which on May 18, 1832, ominously warned against speculation in undeveloped lands, such as were the subject lands in

1822:

Speculation in wild lands has long proved to be an unprofitable business. The man that indulged in a dream of principalities has frequently waked up to find himself without a home; the expenses of management, the infidelity of agents, the consuming moth of taxation having first devoured his available means, and afterwards delivered his domain to the sheriff or the marshal.¹⁰⁹

¹⁰⁹American State Papers, Public Lands, Vol. VI, pp. 481-482.

VI. INVESTMENT OPPORTUNITIES
1800-1836



SECTION VI
INVESTMENT OPPORTUNITIES IN THE
UNITED STATES FOR THE
1800 - 1836 PERIOD

The appraiser, in preparation for this section had the assistance of Bruce McCosh who made this topic the subject of a dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration in the School of Business of Indiana University. This thesis was accepted by the University. The book contains some 300 pages which represents an exhaustive study of all available information having a bearing on investment opportunities, attitudes, and rates at the time under discussion in this report.

The writer of this thesis found a substantial amount of authoritative information as to the general investment picture at the time and was able to give a comprehensive picture of the type of return that was received from some classes of investment.

The results of this study revealed that while there was information available and common knowledge as to the rates of return on such investments as government and state bonds or stocks and on the national banks of the early nineteenth century, there was no definite pattern as to investments in other types of enterprises. There was capital available for investment as there were purchasers for government and state debt although sometimes at premium rates, and there was an outlet for stock in the early banks. However,

there were no established markets, such as the exchanges of modern times or the investment bankers or stockbrokers now such a part of the nation's economy. The study was divided into the various categories shown below:

- I. Public Debt.
 - A. Federal Government; B. State Governments.
- II. Banking.
 - A. National Banks; B. State Banks.
- III. Insurance.
 - A. Marine; B. Fire; C. Life.
- IV. Transportation.
 - A. Turnpikes; B. Stagecoaches; C. Toll Bridges;
D. Steamboating; E. Canals; F. Railroads.
- V. Manufacturing.
- VI. Mining.
- VII. Agriculture.
- VIII. Land.

Federal Government

As of 1820 the Federal long-term debt stood at approximately \$90,000,000.¹¹⁰ The War of 1812 had necessitated substantial borrowing by the Federal Government. In 1812 the Treasury offered \$11,000,000 of 6% stock redeemable after January 1, 1825, or 12 years from issue. Of this offering only \$8,134,700 was subscribed.¹¹¹ In 1813 \$16,000,000 of 6% stock redeemable after January 1, 1826, or 12 years hence was offered. This issue was completely subscribed but only at a discount so that \$100.00 worth of stock

¹¹⁰W. J. Shultz and M. R. Caine, Financial Development of the United States (New York: Prentice Hall, 1937), p. 163.

¹¹¹Executive Document No. 15, 28th Congress, 1st Session, p. 554.

was issued for each \$88.00 received by the Government.¹¹² After the war the credit of the Federal Government increased substantially, and in December of 1821 W. H. Crawford, Secretary of the Treasury, proposed exchanging 5% stock redeemable in 1831, 1832, and 1833 for the then outstanding 6% stock of 1812 and 1813 redeemable in 1825 and 1826. The proposal was approved December 31, 1821, by the Committee of Ways and Means.¹¹³ However, in his report to the Congress in December of 1822, the Secretary, Mr. Crawford, reported that only \$56,704.77 of existing stock had been exchanged for the 5% stock.¹¹⁴

This reveals that as of 1822 a 6% rate of return was still necessary to attract investment, but the general credit of the government was strong or the attempt at refinancing would not have been made.

State Governments

Prior to 1817 there was a limited amount of state indebtedness. With the beginning of the Erie Canal that year, state debts increased as the states became interested in assisting in the development of public works, primarily canals at the beginning. Between 1820 and 1825 the total debt of the various states increased to approximately \$12,700,000¹¹⁵ but most of this was canal bonds.

Margaret G. Myers, Origin and Development of the New York Money Market, states:

The first important issue of state securities was the New York 6's which appeared in 1817. In the next eight years \$7,000,000 of the New York canal stocks appeared on the market

¹¹²Ibid.

¹¹³Ibid., pp. 780-782.

¹¹⁴Ibid., p. 787.

¹¹⁵Shultz and Caine, op. cit., p. 168.

with so high a credit rating that in 1822 Messrs. Astor and Son took \$250,000 worth at 7 per cent premium and in 1823 two large Albany firms took \$300,000 at 5 per cent advance.¹¹⁶

This is another indication that 6% was attractive to capital for conservative investments.

There was no indication that the securities of local governments were of any consequence.

The Bank of North America, 1782

The Bank of North America, chartered in 1781 by the Continental Congress, began operations in 1782. At first it had difficulties in getting sufficient capital, but after it had gotten under way, it proved profitable. Joseph Stancliff Davis reported that up until 1880 the Bank of North America had paid dividends averaging 9.4%. Some of the early dividends were reported to be as high as 14-1/2%.¹¹⁷

The First Bank of the United States

In 1791 the first Bank of the United States was chartered. Twenty-five thousand shares at \$400.00 each were authorized. The Federal Government subscribed for 5,000 shares. The balance was widely sold, including a substantial amount in foreign countries, although stock held by foreigners could not vote.¹¹⁸ The bank was successful and the dividends paid averaged approximately 8-1/3% annually over its 20-year life. When its charter expired it was liquidated, but Stephen Girard, the largest stockholder,

¹¹⁶Margaret G. Myers, Origin and Development of the New York Money Market, Vol. I (New York: Columbia University Press, 1931), p. 24.

¹¹⁷Joseph Stancliff Davis, Essays in the Earlier History of American Corporations (Cambridge: Harvard University Press, 1917), p. 20.

¹¹⁸Shultz and Caine, op. cit., p. 124.

purchased the bank building, opened a private bank, and retained much of the business of the former bank.

The Second Bank of the United States

The second Bank of the United States was chartered by Congress in 1816 with an authorized capital of \$35,000,000, composed of 350,000 shares at \$100.00 each. The Government subscribed for one-fifth of the stock. There was difficulty in disposing of the balance of the stock. It was widely held throughout the country with few large stockholders among American citizens. There was considerable speculation in the stock, and it has been reported that the directors tried to boom the sale of stock in the market place. Ralph C. H. Catterall, in his book on the second bank, reports that the bank showed a net profit in each year's operation. It paid a 7-1/2% dividend in 1818 and only 2-1/2% for the first half of 1819. The latter part of 1819, 1820, and the first half of 1821 no dividend was paid although the bank showed a profit; then dividends were resumed.¹¹⁹ This dividend experience was not as favorable as the first Bank of the United States.

State Banks

From 1810 to 1820 there was a rapid growth in state banks which is best illustrated by the table shown below:

¹¹⁹Ralph C. H. Catterall, The Second Bank of the United States (Chicago: University of Chicago Press, 1903), p. 504.

BANK GROWTH IN THE UNITED STATES, 1811-1836
(Approximate amounts in millions of dollars)

Years	No. of Banks	Capital	Deposits	Circulation	Specie	Loans
1811	89	52.6	. . .	28.1	15.4	. .
1815	208	82.3	. . .	45.5	17.0	150.0
1816	246	89.8	. . .	68.0	19.0	. .
1820	308	137.1	35.9	44.9	19.8	102.1
1830	320	145.2	55.6	61.3	22.1	. .
1834	506	200.0	75.6	94.8	. .	324.1
1835	704	231.3	83.0	103.7	43.9	365.2
1836	713	251.9	115.1	140.3	40.0	457.5

Source: James W. Gilbert, History of Banking in America (London: Longmans, Reese, Orine, Brown, Green and Longman, 1837), p. 49.

This table shows some 300 banks throughout the country in 1820 with combined capital of approximately \$137,000,000. If consideration is given to the large capitalization of the principal banks in Boston, New York, and Philadelphia, this does not indicate a large amount of capital in the rest of the banks spread throughout the country. Students of early banks have reported that a substantial portion of the banks' capital came from local merchants and business men. Such investment assisted these other enterprises to obtain financial services and also enabled such local investors to follow the activities of their investments. There is no reliable information as to an expected or accepted return on such investment. However, the continual increase in the number of banks was evidence in itself that the investment was attractive to some. There is also no question in the appraiser's mind, based on what he has read, that there were often speculative profits realized, but such profits are seldom a matter of record.

At the same time these were essentially local enterprises due to the difficulties of transportation and communication in 1820; there was small

reason to believe that these many small operations constituted an investment outlet on a large or national scale except in Boston, New York, or Philadelphia.

Early Insurance Companies

There had been activity in Marine insurance in the colonies since the early part of the eighteenth century, but in general these were joint ventures organized by a group for the protection of a given ship and cargo on a given voyage. In 1794 the first actual companies were organized in Philadelphia. As this business increased, they branched out into fire insurance companies and, later, life insurance companies. There were reports of rather substantial profits prior to the War of 1812 as well as many failures. The War of 1812 and its difficulties found many companies out of business, and those that survived had difficulties until after 1822. Thus, there was no evidence of substantial returns on investments. However, there was investment in insurance companies for new companies sprang up and some old ones expanded. As was the case with the banks, there was no national market for such investments, and it was primarily a local group, very often the merchants themselves who organized to protect their own interests. Thus this field did not offer any substantial outlets for investment funds.

Early Transportation Companies

In 1822 in the field of transportation within the United States, there were numerous opportunities for investments on a local basis in such enterprises as: (1) turnpikes, (2) stagecoaches, (3) toll bridges, and (4) steamboats, but it is not believed that they, either singly or collectively, provided a fixed pattern for financial returns. These enterprises were by their nature small, local in character, and therefore subject to marked

value fluctuations caused by local economic conditions and management. In general, few of the investment categories mentioned were especially profitable. However, exceptions existed, one being the toll bridge over the Charles River at Boston, Massachusetts, which returned a good profit, and another being in the Eastern Stage Company, a very large operation which showed a profit as high as 10% per annum and averaged about 8-1/2% for 20 years.¹²⁰

In 1820 steamboating was more in the nature of a joint venture or partnership undertaking than of a corporate operation. In some cases extremely high profits were reported, while in others they were small. According to the Tenth Census,¹²¹ there was approximately 26,000 tons of steamboat construction in existence in 1820. Louis C. Hunter stated that steamboats then cost in the neighborhood of \$100.00 per ton,¹²² so it can be seen that this was not a very substantial outlet for investment funds. None of the steamboat operations figured large in the overall economy of the United States, and since they were essentially local enterprises, they could not have affected the national economic picture to a very marked degree.

While very substantial sums were eventually invested in canal building throughout the United States, the greater part of this occurred after 1820. By 1816 only about 100 miles of canals had been constructed, only three of which were more than two miles long, with the longest, the Middlesex Canal

¹²⁰Edward Chase Kirkland, Men, Cities and Transportation 1820-1900, Vol. I (Cambridge: Harvard University Press, 1948), pp. 52-53.

¹²¹Tenth Census, Vol. IV, pp. 662-663.

¹²²Louis C. Hunter, Steamboats on the Western Rivers (Cambridge: Harvard University Press, 1949), p. 307.

in Massachusetts, being 27.25 miles in length.¹²³

In 1822 the impetus for the construction of canals was just getting under way. The Erie Canal, probably the most spectacular of them all, was under construction and others were starting. However, canal construction was far more costly than that for turnpikes and bridges. While the early canals were financed by private capital, by 1822 the greater part of such financing was done by the states. New York State sold over \$7,000,000 in canal bonds between 1817 and 1825 for the construction of the Erie Canal, practically all of which was sold in England.¹²⁴ The returns on these canal investments were not great. The Middlesex Canal, constructed in the 1790's between Boston and Merrimack in Massachusetts, was operated at a loss at the beginning, but apparently as time passed, was one of the better operations. In 1816 it was reported to have "afforded a net income of 3 per cent."¹²⁵ There were other examples of meager returns and even total failures to pay dividends on capital invested in canals. Many of the canals were state constructed, owned, and operated, so the investment was in state securities, rather than in private enterprises.

Early Railroad Companies

As of 1822 railroads were not an investment factor at all as none had so far been constructed, the first of which was started in South Carolina in 1829 and opened December 25, 1830.

¹²³George Rogers Taylor, The Transportation Revolution 1815-1860, The Economic History of the United States, Vol. IV (New York: Rinehart and Company, Inc., 1951), p. 32.

¹²⁴Myers, op. cit.

¹²⁵Caroline E. MacGill, et al., History of Transportation in the United States Before 1860, B. H. Meyer (ed.) (Washington: Carnegie Institution of Washington, 1917), p. 151.

Manufacturing in 1822

In 1822 the United States was only in the primitive stages of manufacturing. America was beginning to be a manufacturing nation in the early 1800's; the bulk of the manufactured products were not made in factories, but in the main, in the households. Though some manufactured products were exported, the greatest portion of our manufactured products was consumed in America.

There were as yet no great industrial empires. The textile factories were just getting started. No great iron and steel mills had been erected. The manufacture of iron rails and railroad equipment had not yet begun. Petroleum and its commercial uses had not been discovered and farm implements to form a great industry had not yet been invented. As of 1800 only eight manufacturing companies had commenced, but not one had paid dividends. Nearly all had suspended operations, several had dissolved, and a majority of their shareholders had suffered pecuniary loss.¹²⁶

Around 1815 the production of goods for sale beyond the immediate vicinity was of relatively small importance. For the most part American manufactures were located in the country, carried on in the household or small mill, and produced for neighborhood use. The mills were typically small, involved but little capital outlay, and were often conducted by a local merchant.¹²⁷

As late as 1829 there is evidence to indicate that important manufacturing enterprises were still not numerous. For example, James Swank quotes from Mr. Zachariah Allen who wrote in the Science of Mechanics in 1829:

The manufacturing operations in the United States are all carried on in little hamlets, which often appear to spring up

¹²⁶Davis, op. cit., p. 292.

¹²⁷Taylor, op. cit., p. 210.

in the bosom of some forest, gathered around the waterfall that serves to turn the mill-wheel. These villages are scattered over a vast extent of country, from Indiana to the Atlantic, and from Maine to North Carolina, instead of being collected together, as they are in England, in great manufacturing districts.¹²⁸

In America, as in England, the great bulk of manufacturing enterprises as they emerged from the household stage were individual proprietorships or partnerships. These organizations were characteristic throughout the Colonial period of grist mills, sawmills, iron forges, slitting mills, fulling mills, paper mills, glass works, et cetera.¹²⁹ Since the first manufacturing enterprises were not corporations, the average individual had little opportunity to invest in the stock of a manufacturing venture as he could do with a turnpike, a bank, or a toll bridge. There were literally no industrial corporate stocks in existence. This is substantiated by Margaret Myers who contends that few business enterprises were organized originally as corporations with any large amount of capital. Those who sought to float stock in New York were more than apt to be speculative adventurers who could not secure capital in their local market. Even in Boston, which was then nearer to the manufacturing enterprises of the country than was New York, no shares of industrial corporations appeared on an exchange until 1827. By 1830, Boston listed only six industrials. The first industrial shares did not appear on the New York Stock Exchange until 1831.¹³⁰ Industrial shares played a very small part, therefore, in the history of the investment market before 1836.

¹²⁸James Moore Swank, Iron in All Ages (Philadelphia: American Iron and Steel Association, 1892), p. 539.

¹²⁹Davis, op. cit., pp. 255-256.

¹³⁰Myers, op. cit., pp. 15-16.

A study of reports listing articles manufactured in the United States in 1810 reveals that substantial portions of such articles were products that required no facilities that could not be found in the home, store, or small mill. Early census reports are sketchy in this respect, but they suggest that the capital invested in 1820 was about \$50,000,000. Since this appears to represent the growth of individual enterprise, it does not indicate a large amount of outside investment.

Indications are that the profits from successful manufacturing operations were more than satisfactory. It is obvious that investors would seek such outlets, but as of 1822 there was no means by which the average owner of surplus capital could find an outlet in manufacturing. Thus it would not provide a means of investment. This does not mean that there was no investment of idle capital in manufacturing, but without a ready market to sell or buy stock, the ability of many investors to participate in manufacturing was limited.

Mining Investments

Investigation has disclosed that here is no indication that any phase of mining was especially successful in the United States as of 1822, or that it was an operation to attract investment capital. Therefore, the infant mining industry renders no assistance on the question of interest rates or as to anticipated returns from capital investments for the year 1822.

Agricultural Investments

In 1822 the capital demands for agriculture in general were limited with the exception of the southern plantations. The farms grew by the toil and effort of the settler in general. They were self sufficient, and in the

fall the farmer sold what surplus he might have for cash or barter to obtain necessities he could not produce himself. The southern plantation was a much larger enterprise and demanded credit accommodations. Often these were provided by the factor or purchaser of the producer's tobacco, cotton, or rice; in some cases the banks accommodated the established farmers. There were also examples in the early days of the South of large plantations, owned abroad and operated by tenants, or absentee ownership through farm managers or overseers.

It is not known with any authority what profits were obtained from the operation of these early plantations, but it is obvious from the size and character of some of these plantations and the scale of living that some were extremely profitable. However, the War of 1812 took its toll from the southern plantation, and for a while thereafter the great agricultural enterprises of the South had their difficulties in recovering from its effects.

The most authoritative comments as to returns on agricultural investments appears to be a report of the Agricultural Society of Baton Rouge in 1829 which cited the capital investment in an average sugar plantation of 1,200 acres at approximately \$147,000 and indicated a net income of \$16,000, which indicates 10 to 11% return. This return included compensation for management.¹³¹

Bidwell cites other cases in the same general period, indicating annual returns of from 14-1/2% to 23%, but these were in specialized fields of agriculture such as sugar and cotton. Morris Birkbeck, the English traveller, in Letters from Illinois, is also quoted by Bidwell as follows:

¹³¹J. Carlyle Sitterson, Sugar Country (Lexington, Kentucky: University of Kentucky Press, 1953), p. 158.

The merchant invests his profits, and the professional man his savings in the purchase of uncultivated lands. The farmer, instead of completing the improvement of his present possession, lays out all he can save in entering more land. In a district which is settling, this speculation is said to pay on the average, when managed with judgement, fifteen per cent. Who then will submit to the toils of agriculture, further than the bare necessity requires, for fifteen per cent? Or who would loan his money, even at fifteen per cent, where he can obtain that interest by investing it in land? Thus every description of men, almost every man, is poor in convertible property.¹³²

The experience of early investors and speculators in large land transactions has been discussed by the appraiser in previous sections of this report.

In summarizing the study of investment opportunities, it appears that as of 1821 the basic rate of return on government obligations was from 5 to 6%. The national debt was about \$90,000,000, so it can be assumed that there was a supply of this type of investment available in the market place. There also appeared to be a substantial amount of bank stock available. However, these enterprises were generally local and the possibility of large investments would have been limited. This same situation existed in other fields--insurance, transportation, manufacturing, and mining. There were no established markets for stock or securities of such enterprises, and there did not appear to be any opportunities for large investment in any particular class of enterprise. It appeared that the source for large amounts of capital for investment, rather than speculation, was in Europe.¹³³

G. S. Callender commented on the various industrial investments of the time. He asserted that corporations, including canals, before 1830 were not able to raise any large amounts of capital without public assistance. This

¹³²Percy W. Bidwell and John I. Falconer, History of Agriculture in the Northern United States, 1620-1860 (New York: Peter Smith, 1941), p. 154.

¹³³L. H. Jenks, The Migration of British Capital to 1875 (New York: A. A. Knopf, 1927), p. 73.

was not due to the lack of an adequate supply of capital. The difficulty related rather to the means of securing control of the existing supply. It was sometimes difficult to induce people to invest in the various enterprises of the day. So far as domestic capital was concerned, there was no large class of persons who, having large incomes, were willing to devote a part of their savings to risky investments or to those from which a return must be slow as well as uncertain. Such capital as was enlisted was chiefly in the hands of small savers. These people were naturally more interested in security than in the chance of a large return. There were very few speculative investors--men who devote a part of their savings to investments involving a great risk and requiring long periods of time to yield a return. In the early part of the nineteenth century there were comparatively few such persons.¹³⁴

It is apparent, however, that there was some risk capital in America for there are too many examples of such enterprises not to feel that such risk capital was available. There was evidence that many fortunes had been established by 1821 throughout the Eastern Seaboard, but they appeared to be cautious in taking their surplus funds from the enterprises in which they had been accumulated and undertaking new ventures that did not benefit them directly. Examples are the investment by merchants in banks to assure their own accommodations, in shipping or transportation, to assist their business, or in insurance for the same reasons.

¹³⁴G. S. Callender, "The Early Transportation and Banking Enterprises of the States in Relation to the Growth of Corporations," Economic Change in America, ed., Lambie, Clemence (Harrisburg, Pa.: Stackpole and Company, 1954), pp. 551-552.

Raw Land as an Investment

In 1821 the number of purchasers of large tracts of raw land would have been limited and their investment in such land would have been made only if the potential profit was attractive commensurate with the risk.

There is no question that at the time there was interest in the speculative investment possibilities in land.

Land is an asset that is strictly tangible. It may deteriorate by excessive use or erosion, but it will always remain. Therefore, it has always had an appeal as an investment. On the other hand, value in land exists for two reasons--the income that can be generated by its use, or by reason of amenities that are desirable and that do not exist in other lands. A significant statement in this regard is quoted from Marion Clawson, Director of the Bureau of Land Management, Department of Interior, in 1951:

It is difficult to realize today, as one looks at good farm land in some midwestern State, that once this land was worthless from an economic point of view. Certainly Iowa farm land had no monetary value in 1620, or even in 1776, or even much later. At each point on the frontier, there was always land of such low value that no one wanted it. In a way, this is perhaps the definition of the frontier. There was a frontier in American (including colonial) history for roughly 250 years, and for those years there was some or much land essentially worthless. But as settlement progressed, the land which had been worthless came to have value, perhaps much greater value than the land settled in earlier decades. In a pioneer country where transportation is poor, value of land is only incidentally related to physical characteristics, because markets are far more important. . . .¹³⁵

As of 1821 subject land had neither of these attributes. No income could be produced by reason of ownership of the land as there were no means to dispose of whatever might be produced on the land. At the time there were no amenities that did not exist and were obtainable in many other areas.

¹³⁵Marion Clawson, Uncle Sam's Acres (New York: Dodd, Mead & Company, 1951), pp. 87-88.



Any prospective purchaser would only buy on the basis of future value. The future value was uncertain by reason of no assurance as to when such value might be generated and how fast it would develop. At the same time there was a vast amount of land available elsewhere and there was nothing apparent at the time to set this area above many other areas available.

CONCLUSIONS RE INVESTMENT OPPORTUNITIES IN THE

UNITED STATES AS OF 1822

As of 1820 there appeared to be no established outlet for investment funds available on a national scale except government obligation which, as of that time, were reasonably stable and did not offer speculative possibilities. Other outlets for investment were essentially local and there appeared to be nothing that provided any widely recognized outlet for either investment or speculation. There was no indication of widespread interest in large scale land development, nor was there any established class or group of people with substantial amounts of capital seeking large speculative investments. Foreign capital was interested in American investment but primarily in conservative operations. Experience has shown throughout history, and the fact has been illustrated herein, that if the potential profits were interesting enough, investors would appear attracted by such profits. Considering the profits that were reported for various other enterprises, it would appear that a minimum of 15% return would be necessary to attract capital to land development.

VII. MICHIGAN AS OF 1822

SECTION VII

MICHIGAN AS OF 1822

CONTEMPORARY OPINION OF LANDS IN MICHIGAN TERRITORY 1812-1822

Until the period of 1818-1820 practically nothing was known about the interior of Michigan except by the native Indians and a few white trappers and traders in their midst. These people had no interest in the land itself, except as a means of subsistence for the Indians and for the furs that could be acquired by the traders and trappers.

Initial Reports of Surveyors

By the Act of May 6, 1812, 2 Stat. 728, the Congress granted 6,000,000 acres of public lands to which the Indian title had been extinguished for military bounty lands, 2,000,000 acres of which were provided to be located in Michigan Territory.¹³⁶ Shortly after the end of the War of 1812, arrangements were made to survey this 2,000,000-acre military bounty tract in Michigan, but the Indians were still hostile and the surveyors did not immediately go into the area. Finally, in the fall of 1815 these surveys were started in the Michigan Territory. The reports of the United States'

¹³⁶Floyd Russell Dain, Every House a Frontier, "Detroit's Economic Progress 1815-1825" (Detroit: Wayne University Press, 1956), p. 66. Dain's reference: "An Act to provide for designating, surveying and granting the Military Bounty Lands," May 6, 1812, United States, The Statutes at Large of the United States . . . Concurrent Resolutions, Recent Treaties, Conventions and Executive Proclamations (55 Vols.; Boston: 1845-73; Washington: 1875-1942), II, 728-30.

surveyors after a few weeks in the field were completely derogatory of the lands. Based on such reports, Edward Tiffin, the Surveyor-General of the United States for Lands Northwest of the Ohio River, suggested to Josiah Meigs, Commissioner of the General Land Office, that other lands be selected as bounty lands instead of those in Michigan. He described the territory as a great swamp of no value. He claimed it was not worth the trouble of surveying, and that not one acre in a thousand was worth cultivating.¹³⁷ Tiffin later wrote that "Subsequent accounts confirm the statements, and make the country out worse (if possible) than I had represented it to be."¹³⁸ This 2,000,000-acre proposed military tract was located in southeastern Michigan, adjacent to Area 117, Michigan 1, Indiana, on the east.

Based upon these reports and upon the recommendation of President Madison, by the Act of April 29, 1816, 3 Stat. 322, Congress repealed that portion of the 1812 Act previously designating the 2,000,000 acres in Michigan as military bounty lands, and in its stead set aside 1,500,000 acres additional in Illinois and 500,000 acres in Missouri for the same purpose.

After the reports furnished by the surveyors in 1815 relative to the undesirability of Michigan lands for settlement had been transmitted to the Congress, this information naturally became a matter of public record. As a result, Surveyor-General Tiffin's report constituted the first general impression as to the lands of Michigan Territory available to those who might have otherwise become interested in them for settlement. Then, as now, bad reports travel faster and last longer than good ones, even as to

¹³⁷American State Papers, Public Lands, Vol. III, op. cit., p. 164.

¹³⁸Ibid., p. 165.



the desirability or its lack in lands. Consequently, the 1815 official reports relative to the undesirability of Michigan lands undoubtedly must have survived in the minds of many long after it had been largely repudiated by subsequently issued information of a more favorable nature.

Subsequent Reports Based on Later Surveys and Laymen's Comments

After the publication of this unfavorable 1815 Tiffin report, surveying of public lands stopped for a while in southeastern Michigan. Governor Lewis Cass still insisted that there was good land in Michigan, contending always that the surveyors' original reports to the contrary were grossly in error. He urged that the surveys be continued so that public lands could be made available to settlers.¹³⁹ In addition to Governor Cass's defense of Michigan lands, James Abbott, the Receiver for the Land Office at Detroit, reported to Josiah Meigs, Commissioner of the Land Office, that the public lands located on the margins of the principal watercourses in southeastern Michigan Territory were of good quality, some of which were reported to be near established settlements and, therefore, would probably sell readily. Accordingly, in July of 1816 surveying of Michigan lands was again authorized, and by 1817 some surveys had been completed.¹⁴⁰ However, the total amount surveyed by 1817 was only a fraction of the lands in southeastern Michigan which had been cleared of the claims of Indian title. The surveyed lands were close to either Lake Erie, the Detroit River, or Lake St. Clair, all being within Area 66, Michigan 1, Ohio, and many miles to the east of Area 117. The title to Area 66 had been previously cleared of claims of

¹³⁹Clarence Edwin Carter, ed. and comp., The Territorial Papers of the United States (10 Vols.; Washington: 1934-1942), X, pp. 634-636.

¹⁴⁰*Ibid.*, p. 656.

Indian title by the Treaty of November 17, 1807, 7 Stat. 105.

By the fall of 1818 there were definite assurances that the 1815 reports of the government surveyors relative to Michigan lands were grossly exaggerated and on the contrary there was much good land in that portion of Michigan with heavy forests as well as the previously reported swampy areas.

During the fall of 1818 a group of citizens from Detroit, Michigan, set out to explore the wilderness north of Detroit. On this trip they went several miles north of what is now the City of Pontiac in the present Oakland County, Michigan. They brought back favorable reports relative to the desirability and fertility of the lands along their route.¹⁴¹

William A. Darby visited Detroit, Michigan, in August of 1818. He commented afterwards that "Though the soil is good in general, some of it excellent, and all parts well situated for agriculture and commerce, some causes have hitherto operated to prevent any serious emigration to the Michigan Territory."¹⁴²

In 1818 Estwick Evans also wrote in very complimentary terms relative to Michigan lands:

I deem it my duty to express a high opinion of the Michigan Territory, because facts warrant such a course, and it is important that those of my fellow citizens, who may be disposed to emigrate to the west, should possess every information upon the subject . . .

In traveling more than four thousand miles in the western parts of the United States, I met no tract of country which, upon the whole, impressed my mind so favorably as the Michigan Territory. Erroneous ideas have heretofore been entertained respecting this territory . . .

¹⁴¹Detroit Gazette, October 30 and November 13, 1818.

¹⁴²William Darby, A Tour from the City of New York, to Detroit, in the Michigan Territory made between the 2nd of May and the 22nd of September, 1818 (New York: 1819), p. 200.

The soil is generally fertile, and a considerable proportion of it is very rich. Its climate is delightful; and its situation novel and interesting. . . . There is no place in the world more healthy than the city of Detroit. . . . A yankee farmer carrying with him to this place his knowledge of agriculture, and his industry, might soon acquire a very handsome estate.¹⁴³

It is thus shown in the above statements that there were those who were convinced that there was some good land in Michigan Territory as early as 1818. On the other hand, all opinions expressed relative to the desirabilities of Michigan lands applied only to those portions situated within 40 to 60 miles of Lake Erie, the Detroit River, or Lake St. Clair. There is no evidence disclosing the reputed desirability for settlement of lands within the vast interior of Michigan Territory as of 1822.

In this connection William A. Darby in 1818 described the interior of Michigan Territory 25 miles from the depressions of Lake St. Clair and Lake Erie as being "flat, covered with innumerable ponds and interlocking water courses. . . . Some of the interior plateau is described as good land, but the face of the country is generally too level, and of course subject to immersion in wet seasons."¹⁴⁴

Lanman in History of Michigan published in 1839 described the soil of Michigan in glowing terms, but he pointed out that as of 1820 very little was known about it:

. . . The interior was occupied, for the most part, by Indians and traders, who had just emerged from a struggle with the United States to secure the domain. But few motives were presented under these circumstances for any thorough explorations. It was for the interest of these traders and Indians to describe the country as low, wet, and almost submerged by swamps. When an occasional party adventured into the forest, their horses

¹⁴³Estwick Evans, "Evans' Pedestrious Tour of Four Thousand Miles--1818," in Reuben Gold Thwaites, Early Western Travels, 1748-1846 (32 Vols.; Cleveland: 1904), VIII, pp. 219-222.

¹⁴⁴Darby, op. cit., p. 199.

sunk deep in the mire which abounds along the frontier; and they were induced to return without advancing further, for their own experience confirmed the current reports. They were not aware of what facts have since proved, that the central portion of Michigan abounded with a dry, undulating, and fertile soil, in every way adapted to the purposes of agriculture. Accordingly it was twenty years since believed that what now constitutes the State of Michigan was a vast morass, surrounded only by a narrow rim of inhabitable land.¹⁴⁵

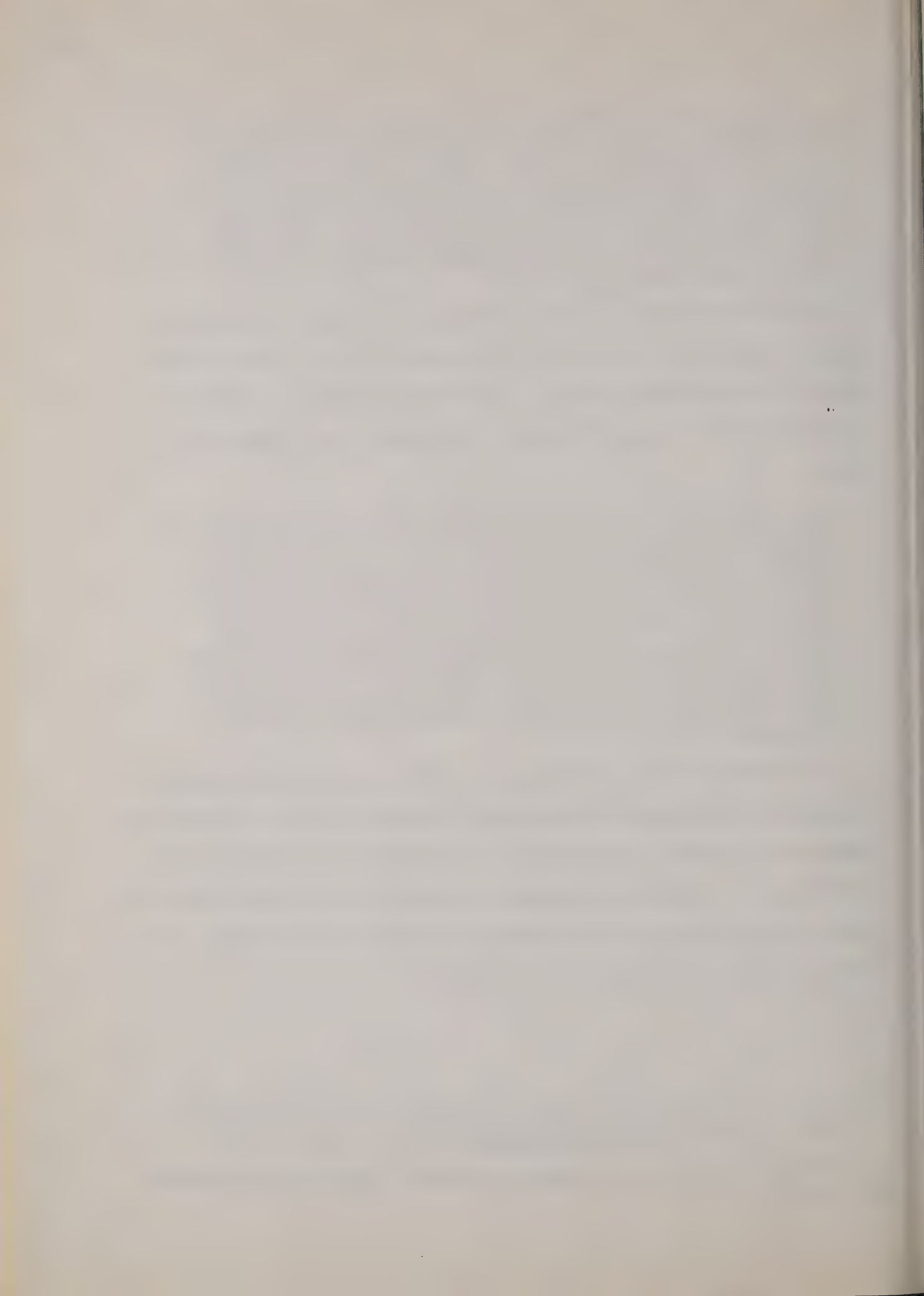
During this time the citizens of Detroit were trying to disseminate favorable information to the rest of the country but with little apparent success as of the 1820-22 period. A significant statement is quoted from a contributor to the Detroit Gazette in 1820 signed "The Stranger," as follows:

Before the building of the steamboat on Lake Erie, little more was known in the Atlantic states of this territory, than [that] Detroit and Mackinac belonged to it. . . . It is truly a subject of regret, that nine-tenths of the strangers who visit this delightful section of our country, should go home without being able to answer one single question correctly, respecting the interior . . . It is truly a matter of astonishment that many of the citizens of Detroit, who have resided here for forty years and upwards, should be profoundly ignorant of the country twenty miles back from the river. How, then, could it be expected that those of us who live a thousand miles off should be undeceived?¹⁴⁶

As of March 25, 1822, an examination of the records of the slow growth of population in Michigan Territory and of the sparse sales of offered public lands therein present cogent proof that if desirable lands existed in Michigan Territory in substantial quantities, prospective settlers had either not heard of them or else were not convinced of the truth of any reports of that nature which might have come to their attention.

¹⁴⁵J. H. Lanman, History of Michigan, published in 1839, p. 320.

¹⁴⁶Dain, op. cit., p. 71. Dain's reference: Detroit Gazette, September 1, 1820.



Conclusions re Contemporary Opinion
of Michigan Lands as of 1822

The reports made in 1815 by the surveyors relative to lands in southeastern Michigan Territory were extremely derogatory. It may be reasonably assumed that these reports became widely disseminated throughout the nation since they were made matters of public record with their filing before the Congress. Subsequent investigations made between 1817 and 1820 at the insistence of Governor Lewis Cass of Michigan Territory disclosed there was good land in that part of Michigan Territory north and west of Detroit and the Detroit River for some 40 to 60 miles west of Lake Erie and the Detroit River. Although there were some rather glowing reports made about Michigan lands during the 1818-1822 period, there is little evidence that such reports had any appreciable effect upon the previously existing adverse outside public opinions or that such created any great interest in the lands prior to 1822. This conclusion is corroborated by three important facts: the slow growth of population in Michigan Territory up to 1820; the sparse public land sales through 1821; and unfavorable comments in the press and in current publications relative to the region for this period. This conclusion will be further corroborated by the actual land sales as described subsequently in this report on pages 209-218.

TRANSPORTATION AND COMMUNICATION

For many years the Ohio River had been the main route of travel to the west. The areas around the Great Lakes were too far off this common path of western advance down the Ohio to interest many settlers.

Essentially there were three routes which would lead to the area later known as Michigan. One was across Canada. Another was by boat across Lake Erie, and the third was across Ohio along the military road that led through the Black Swamp south of where Toledo, Ohio, is now located. See map, Plate 2, page 18. Those who came by land through Canada suffered because of the severe weather and the usual difficulties of land transportation. Those who came across Lake Erie faced the dangers of storm and shipwreck, and those who came by way of the Black Swamp were often obliged to wade through water, mud, and ice. These hazards of transportation and travel were quite in contrast to the leisurely type of conveyance down the Ohio River.

In 1815 the land area constituting the northwestern frontier of the United States bordered on the Great Lakes. Most of the immigrants to Ohio, Indiana, and Illinois had followed the natural highway offered by the Ohio River and had settled along its banks or in adjacent areas reached by short overland trips. These settlers then had relatively cheap communication with Pittsburgh and a choice of either Pittsburgh or New Orleans as a market for what excess farm production they could spare. This transportation was substantially improved with the advent of the steamboat.

As early as 1811 a steamboat passed down the Ohio to the Mississippi. It served lower Mississippi River traffic. It was in 1815 that the 75-ton Enterprise was able to pass up river over the falls at Louisville and become

the first steamboat to accomplish this feat.¹⁴⁷

The first steamboat appeared on Lake Erie in 1818, but it was not until 1825, seven years later, that there were as many as two of them at any one time on the lake.¹⁴⁸

Prospective settlers desirous of moving to the new lands of the Northwest Territory were reluctant to go into areas where adequate transportation facilities were not available. After the War of 1812, the great influx of immigrants followed the line of earlier migrations to the west. As late as 1820 the southern shores of Lake Erie had a population averaging only six to eighteen persons per square mile, while those at the southwestern and western ends of the lake averaged about two to six persons per square mile.¹⁴⁹ While the latter areas generally were considered fertile and the climate mild, substantial agricultural population later became attracted to the region only after transportation facilities improved and costs lessened. Until the completion in 1825 of the Erie Canal from Albany to Buffalo, New York, at the eastern end of Lake Erie, eastern and southern markets could be served only from the Lake Erie regions by costly overland transportation. Northern Ohio in 1822 was not sufficiently populated to consume its own potential production. Consequently, it was not then an adequate market for Michigan products. Since it has been estimated that costs of overland transportation per mile in 1822 was equivalent to that of 20 miles by water, a farmer of the Lake Erie or Detroit River regions could not possibly have competed with one living in the more favored localities, such as in southern Ohio, Indiana,

¹⁴⁷Buley, op. cit., p. 417.

¹⁴⁸Dain, op. cit., p. 35.

¹⁴⁹Twelfth Census, op. cit.

and Illinois and along the Ohio River.¹⁵⁰

In 1822 there were no good roads leading south from Michigan Territory into Ohio. The Black Swamp, to be subsequently described, still served as a great hazard and obstacle to overland transportation to Ohio.

The Maumee, or Miami River, as it is now called, entering Lake Erie at what is now Toledo, Ohio, was a route of travel of some importance in 1822. However, this river dwindled in flow to only a small non-navigable stream a relatively short distance from its entrance into Lake Erie. Thence, by the portage of canoes, small amounts of goods could be carried overland to the headwaters of the Wabash River near what is now the City of Fort Wayne, Indiana, and from there down the Wabash River to the Ohio River where it entered the Mississippi River. However, this combined land and water route did not permit the economical shipment to market of goods from Michigan. There were too many settled areas along the Ohio and Wabash Rivers closer to markets to permit competition from Michigan Territory over such an unsatisfactory route. Therefore, it is no wonder that early settlers preferred to drift leisurely down the Ohio River to find lands further west more accessible than to select homes in the wilderness of Michigan Territory.

Transportation Facilities on the Great Lakes as of 1822

Until the year 1818 no changes in the status of the lake country were sufficiently important to make it more desirable for the prospective immigrant. Neither were there any noteworthy improvements in water transportation, except for an increase in the number of ships engaged in trade and passenger service. The following table, taken from Dain, illustrates the

¹⁵⁰Dain, op. cit., p. 27. Dain's reference: Detroit Gazette, April 19, 1822.

growth of vessel tonnage on Lake Erie from 1815 to 1819;¹⁵¹

Port	Tonnage Registered			
	1815	1816	1817	1819
Buffalo, New York	. .	493.77	493.77	No returns
Erie, Pennsylvania	249.19	644.59	667.28	633.21
Cleveland, Ohio	419.18	590.39	644.40	834.71
Sandusky, Ohio	. .	71.42	280.26	363.59
Detroit, Michigan	159.12	498.69	630.23	533.45

Dain has described transportation by sailing vessels on the Great Lakes as follows:

Transportation by sailing vessel was dangerous and undependable, but offered the best means of communication with the East until the arrival of the steamboat. As the lake area increased in population, the number of vessels in service multiplied. Passenger fare between Detroit and Buffalo in 1817 was \$15.00, and the Gazette claimed that from May 10th to November 10th of that year \$15,000 had been paid to ship owners in fares alone. Subsequently, an increase in the number of passengers and in steamboat competition served to reduce the fare. Sailing time by schooner between Detroit and Buffalo was approximately two weeks, but frequently, contrary winds delayed the departure of vessels or lengthened the time of the voyage;³⁵ . . . the dangers and discomfitures attending a voyage were many, for storms were common and few provisions were offered for passenger comfort.¹⁵²

Schooners carried most of the freight on the Great Lakes until 1825, since steamboat tonnage did not increase significantly until after that year. Cargoes shipped westward far exceeded in bulk those shipped to the East. From eastern ports merchandise and provisions were shipped to supply the needs of the inhabitants and the military garrisons at Detroit and the various posts on the upper lakes. Despite the deficiency in the amount of freight shipped

¹⁵¹American State Papers, Commerce and Navigation, II, pp. 40-41, 90-91, 164-165, 408-409.

¹⁵²Dain, op. cit., pp. 31-32. Dain's reference: Witherell to his wife, August 29, 1815, "Witherell Papers"; Williams to H. H. Schiffelin & Co., December 30, 1815, "Williams Letterbook."

eastward, some of the cargoes entrusted to schooner transport were of great value, even after steamboat carriage was instituted. As late as 1825 freight and passenger traffic on the upper lakes was still almost wholly by schooner, for Detroit continued to be the western terminus for steamboat navigation.¹⁵³

Dain has further described the general transportation situation in the lakes region and the arrival of the first steamboat at Detroit in 1818 as follows:

Steamboat navigation on the Great Lakes was slow to arrive, for until 1818 and after there was not sufficient demand for freight and passenger service in the thinly populated lake region to warrant the expense of its construction. . . .

. . . On August 27, 1818 the Walk-in-the-Water dropped anchor in Detroit harbor, forty-four hours and ten minutes running time out of Black Rock [near Buffalo]. . . She was of 330 tons burden, 135 feet in length, with 32 foot beam, and drew $8\frac{1}{2}$ feet. Her two masts were rigged with sails to take advantage of favorable wind; her low pressure square engine propelled her at an average speed of seven and a half miles per hour. She made periodic stops at several ports to take on wood for fuel, a trip from Buffalo requiring thirty-six to forty cords.

The cost of cabin passage from Buffalo to Detroit was eighteen dollars, although a person could travel in steerage for seven. The fares included accommodations and meals. . . .

The Walk-in-the-Water sailed for four seasons between Black Rock and Detroit before being wrecked near Buffalo on November 1, 1821. She was the only steamboat on Lake Erie during this time . . .¹⁵⁴

When the steamboat Walk-in-the-Water was wrecked in 1821, her engine was removed and placed in a new hull. This new ship was called the Superior, and first arrived in Detroit on May 25, 1822. Until the appearance of the Superior in 1822, the Walk-in-the-Water, which first came to Detroit in 1818, was the only steamboat on the lakes, and she confined her services to

¹⁵³Ibid., p. 33.

¹⁵⁴Ibid., pp. 34-35.

Lake Erie for the most part during the 1818-1822 period.¹⁵⁵

In the early 1820's as even today, lake navigation was considerably hampered by the necessity for closing down for some four or five months in the winter because of adverse weather conditions. Usually boats began to arrive in Detroit from Buffalo the latter part of April or the first of May, and continued to arrive until late November.¹⁵⁶

Early steamboat transportation costs on the lakes have been described by Dain as follows:

Despite the expediency of shipment the cost of freight by steamboat diminished until it was at a par with costs by sailing vessel. Except for heavy goods, which were freighted per hundred-weight, the barrel was evidently the unit for determining costs; and, as was customary with the schooners, bulky goods were reduced to barrel bulk and rated in a like manner. In 1819 Woodbridge paid \$1.50 each for the transportation of merchandise in barrels from Erie to Detroit. Rates were reduced in June, 1820, and were further reduced by competition with sailing vessels in the following years. By the summer of 1825 the Superior was carrying merchandise to Detroit at rates as low as those of the schooners. . . .¹⁵⁷

Dain has further compared water and overland transportation costs as follows:

In 1815 the cost of wagon transport from Albany to Buffalo was \$5.00 per hundredweight. From Albany to Seneca Falls by water and thence to Buffalo by wagon was \$4.50. . . .¹⁵⁸

For many years prior to 1822, enterprising individuals in New York had pointed out the advisability of connecting by means of a canal the waters of Lake Erie with those of the Hudson River. After much argument and delay, the New York State Legislature finally authorized the project on April 15,

¹⁵⁵Ibid., pp. 36-37.

¹⁵⁶Fuller, op. cit., p. 71.

¹⁵⁷Dain, op. cit., pp. 38-39.

¹⁵⁸Ibid., p. 51.

1817, and provided means for financing it. By the end of June of that year the route of the Erie Canal had been laid out and contracts let for the construction of the middle section. The first excavation was made at Rome, New York, on July 4, 1817.

In October of 1819 part of the canal was opened for navigation. In the years immediately following additional sections were opened. As these additional sections were opened, transportation charges across New York State decreased proportionately. By the end of the year 1821, freight was shipped from Albany to Buffalo at the eastern end of Lake Erie for about \$2.50 per hundredweight, and in 1822 it was further reduced to \$2.00. The fall of 1825, more than three years after the valuation date of March 25, 1822, witnessed the completion of the Erie Canal. Two thousand boats of 40 tons burden plied its waters, drawn by 8,000 horses and operated by 8,000 men. Including all tolls, merchandise was transported by canal boat from Albany to Buffalo, a distance of 362 miles, for about 90 cents per hundredweight, about one-fifth the cost of overland wagon transport in 1816. Farm produce was shipped at even lower rates, a hundredweight being carried across the state for about 55 cents. Contrast these rates with those cited for 1815 on page 98 which discloses the influence of the completion of the canal in 1825 on transportation costs. Passengers were carried on the freight boats at a rate of one to one and a half cents per mile.¹⁵⁹

The techniques of safeguarding navigation on the lakes failed to keep pace with either the slight improvements in ship design or with the increases in shipping tonnage. Ships under sail were at the mercy of Lake Erie gales. In rough weather to anchor was the only protection against being driven

¹⁵⁹Ibid., pp. 52-54.

ashore. The Niagara River at Buffalo, New York, was the only safe shelter, and sailing vessels frequently took refuge there. At the western end of Lake Erie the harbor of Put-in-Bay in Ohio was the only safe natural anchorage, and in times of rough weather shipmasters endeavored to reach its protected waters. Many ships were lost for want of refuge from storms, particularly in the autumn when gales were most severe.

Dain has described the inadequate harbor facilities existing on Lake Erie as follows:

The mouths of all the rivers and creeks entering Lake Erie were choked with vegetable debris and fronted with sand bars. Most of the ports on the lake were located at the mouths of streams, because of the facilities they offered for inland communication. The prevalence of the sand bars, however, prohibited the larger vessels from using them as anchorages. [It was] claimed in 1818 that, with the exception of Niagara River, Put-in-Bay, and the Detroit River, there existed no harbor in Lake Erie that could be safely entered in a swelling sea by a vessel drawing seven feet of water. Ships were forced to come to anchor in open water of safe depth, and load and unload their cargoes with lighters and flat boats. Even a light sea rendered this task difficult . . .¹⁶⁰

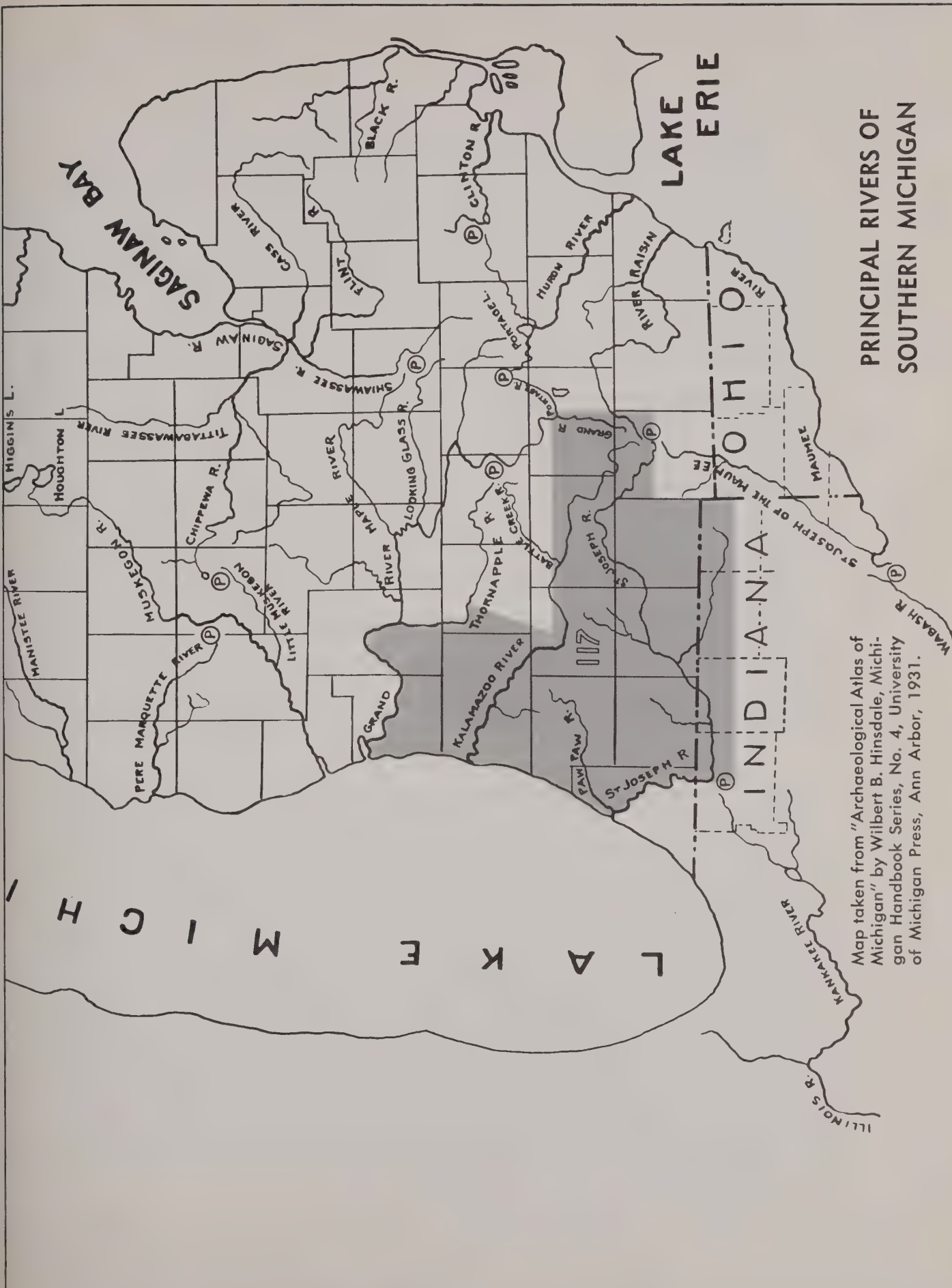
In 1816 federal appropriations were made for the erection of lights in the Niagara River. In 1818 additional funds were again appropriated for lights. However, harbor improvements on Lake Erie were not forthcoming until 1825.¹⁶¹

River Transportation in the Michigan Territory as of 1822

Throughout its early history the rivers of Michigan have provided the principal access into the interior and across the Lower Peninsula. The principal rivers are shown on the map, Plate 4, page 101, which is reproduced from Archaeological Atlas of Michigan. The boundaries of Area 117 are also

¹⁶⁰Ibid., pp. 39-40.

¹⁶¹Ibid., pp. 41-42.



PRINCIPAL RIVERS OF
SOUTHERN MICHIGAN

Map taken from "Archaeological Atlas of Michigan" by Wilbert B. Hinsdale, Michigan Handbook Series, No. 4, University of Michigan Press, Ann Arbor, 1931.

outlined on this map. It will be noted that the rivers flowing to the east and west through Michigan arise relatively close to each other. In the early days this enabled transportation by the canoes up one river, thence by portage to another, and down the latter to its mouth. The main trails or footpaths used during the early period also largely followed these watercourses.

This method of transportation by canoe was of limited value to the settler seeking to transport his household goods and farming equipment to his farm and, later, his surplus produce to market. Some of these rivers, however, were navigable for craft larger than canoes for some portions of their lengths. The principal rivers of southern Michigan Territory were the Clinton River flowing into Lake St. Clair and the Huron and Raisin Rivers flowing into Lake Erie. None of these rivers reached into or served the transportation needs of Area 117. On the west coast of Lake Michigan, the Grand, St. Joseph, and Kalamazoo Rivers were arteries leading into the interior of Area 117, the Grand flowing along the north boundary of subject property, the St. Joseph serving the southwestern corner and the Kalamazoo the center.

Henry R. Schoolcraft in his Journal stated that the Huron River of southeastern Michigan Territory was navigable for 60 to 70 miles from its mouth, but asserted that the Raisin River in the same area was swift with rapids. Neither of these rivers reached into Area 117. F. Clever Bald has stated that the St. Joseph River in the southwestern portion of Area 117 bore ships as far up as the docks at Niles in the present Berrien County within the southern portion of subject area.¹⁶² Bald also stated that in times of high water ships came up the Kalamazoo River as far as the present City of Kalamazoo within the interior of Area 117 and that small steamboats came up

¹⁶²Bald, op. cit., p. 168.

the Grand River to Grand Rapids in the present Kent County, within the northern part of the subject lands.

There were several other streams within Area 117 which could have provided limited means of transportation, but these could not be classed as dependable means of transport. In later years many of these streams were used to float logs downstream to Lake Michigan. However, the species of timbers standing upon the subject lands was of no market value on March 25, 1822.

Land Transportation in the Southern Portion of Michigan Territory as of 1822

In 1822 the major obstacle to intercourse between Detroit and the inland portions of Michigan Territory was the difficulty and expense of overland transportation. Even though the costs of water transportation eventually diminished, the lack of facilities for overland transportation kept freight rates between Detroit and other points at high levels.

On page 18 is a map showing the important early trails to and from Michigan Territory. The interior trails were of little consequence as of 1822 for no occasion to travel in the interior existed except for Indians, traders, and trappers engaged in the fur trade. The Sauk, or Chicago Trail, as it is sometimes called, which traversed the southern part of Area 117 is especially noteworthy for it became the famous Chicago Road of later years. However, from all available information as of 1822, it was only a well-marked Indian path, and in no proper sense could it be considered to have utility as a road of commerce. This trail ran from the vicinity of New Buffalo at the southern end of Lake Michigan past what is now the present Cities of Niles, Sturgis, and Coldwater within Area 117 northeastwardly to Clinton and Ypsilanti within Area 66, Michigan 1, Ohio, and thence to Detroit. According to available archaeological maps, the present United States Highway No.

112 now follows this old trail very closely through Michigan. Several other early Indian-trapper trails eventually became important local or state routes, but in 1822 they were only narrow paths. See map, Plate 5, page 105.

In 1815 no road as such existed between Detroit and Ohio, the source of most of the food for the garrison and the civilian population. Yet when navigation was closed, the populace was forced to depend upon this expensive, dangerous, and unpredictable wilderness route for all communication with the outside world.¹⁶³

Any communication with Michigan Territory by land through northern Ohio, either around Lake Erie to the Ohio Lake Shore or to southern Ohio was through the Black Swamp.

Quaife and Glazer describe the Black Swamp as follows:

The Black Swamp, about 4,000 square miles in extent, comprised several present-day Ohio counties lying at the southwest end of Lake Erie, and extending westward from Sandusky Bay to the lower course of the Maumee. Heavily timbered and with an underlying clay formation impervious to water, during much of the year the swamp resembled a shallow, muck bottom lake. Only in extreme cold weather could it be traversed with relative ease, and all who encountered it retained lifelong memories of its horrors.¹⁶⁴

In 1816 troops at Detroit began the construction of a road to the Rapids of the Miami River in northern Ohio. By the summer of 1818 the road had been cut through a wilderness of timber to within a few miles of the River Raisin, now in Monroe County of southeastern Michigan, and at the end of the year it reached to within eight miles of the rapids. The road was then described as "a truly magnificent one, being 80 feet wide, cleared of all the logs and

¹⁶³Dain, op. cit., p. 42.

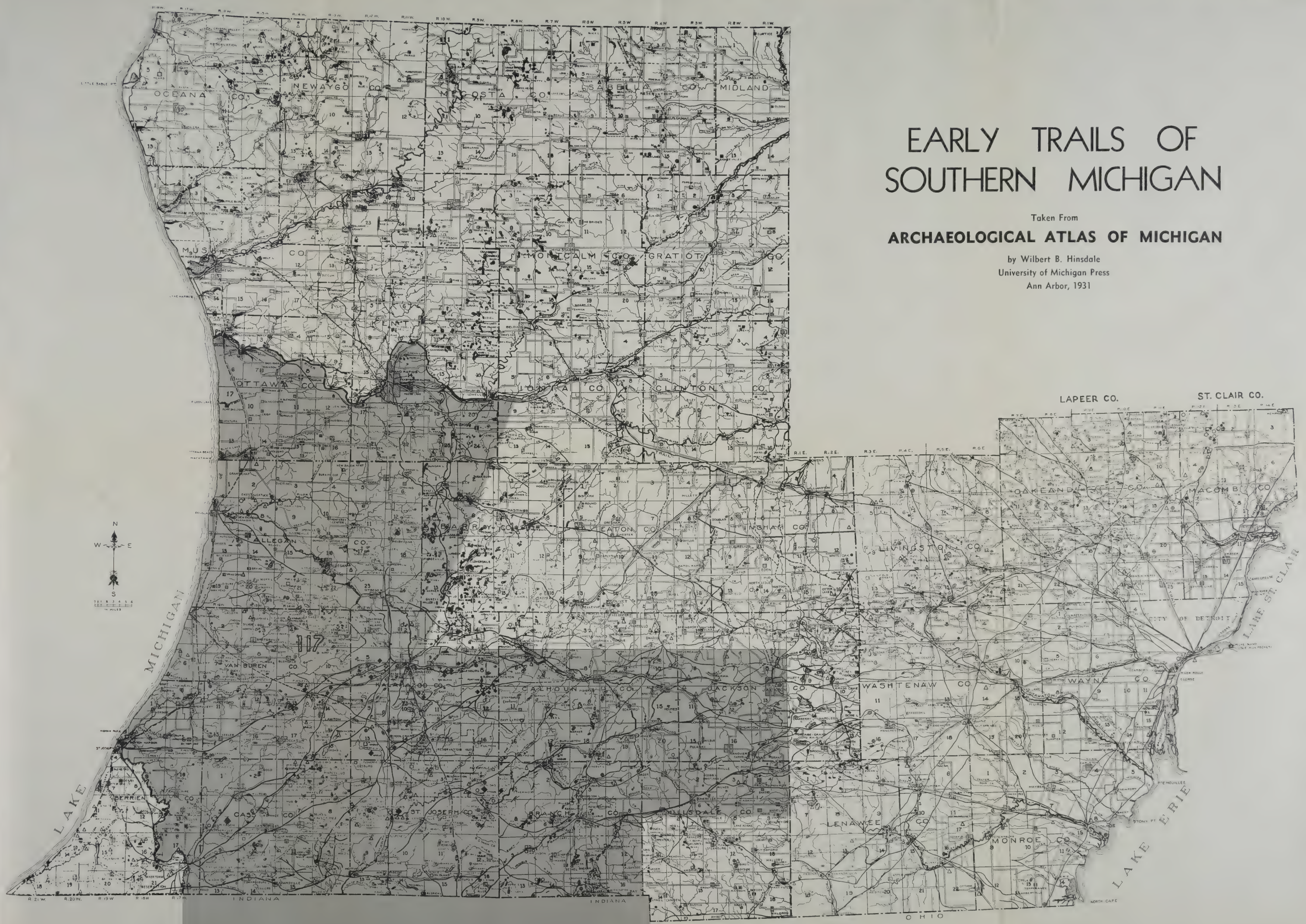
¹⁶⁴M. M. Quaife and Sidney Glazer, Michigan, from Primitive Wilderness to Industrial Commonwealth (New York: Prentice-Hall, Inc., 1948), footnote p. 153.



EARLY TRAILS OF SOUTHERN MICHIGAN

Taken From
ARCHAEOLOGICAL ATLAS OF MICHIGAN

by Wilbert B. Hinsdale
University of Michigan Press
Ann Arbor, 1931





underbrush, every low place causewayed, and all creeks and rivers requiring it, bridged in a substantial manner." Because of sickness among the troops employed, the project was delayed and was not completed until the fall of 1819.¹⁶⁵

This road served for only a short time until the citizens of Detroit were demanding a new road to the Ohio line. The existing road, so lavishly described above, was later characterized as being almost impassable for wagons, even in good weather, on account of logs, stumps, and deep holes. In the fall and spring it was almost impossible to travel it on horseback.¹⁶⁶ However, it was not until the Act of May 26, 1824, 4 Stat. 71, that Congress appropriated \$20,000 for the construction of a new road from Detroit to the Rapids of the Miami River of Lake Erie. Having completed the survey of the new road by November of 1824, contracts for its construction were let the following spring. This road from Detroit to the Rapids of the Miami River in Ohio, which was completed after 1824, was not even in the contemplative stage as of March 25, 1822, and therefore could not have had any influence upon the market value of Area 117 as of the valuation date because until the area already inhabited was accessible to the rest of the country, there would be no interest in settlement farther away from developed areas.

Dain has made the following comment about the need of the times for inland roads in Michigan:

In 1818 there was small need for roads leading from Detroit to the interior of the territory; the few inhabitants of the area lived along the shores of the navigable waterways, and journeys overland were rare. The surrounding wilderness reached to within two miles of the city, but what it was like and what it contained

¹⁶⁵Macomb to Brown, December 5, 1818, Macomb Letterbook, Niles' Weekly Register, May 8, 1819.

¹⁶⁶Dain, op. cit., p. 43.

remained a mystery. Not until an expedition explored the area in the fall of 1818 did the people in Detroit begin to take an interest in its possibilities. Except for the few furs that might be gathered there, it contributed nothing to the well-being of the city, and Detroit could justly be termed "a town with (comparatively) no country." The more enlightened citizens, realizing that "a town cannot flourish extensively without a country to support it," petitioned the Administration to put on the market the lands in southeastern Michigan that had already been surveyed.¹⁶⁷

The Territorial Legislature had earlier endeavored to establish inland roads. In 1816 it had asked for bids to cut and open a turnpike from the boundary of the City of Detroit to a point five miles north, but by 1818 only two and a half miles of this road had been constructed, extending as far as the southern limits of the Ten Thousand Acre Tract donated to the City of Detroit by Congress. No private contractor could be found who would attempt the construction, and so soldier labor was employed, the citizens of Detroit agreeing to pay for it. Subsequently, the legislature arranged to have the road laid out to Pontiac, and contracted for the construction of a turnpike across the most difficult part of the route. Private citizens contributed funds and subscribed labor for building the road, for, having speculated in lands, they realized that their profits depended to a large extent on the accessibility of their purchases. Shelters were erected along this stretch for the housing of subscribed labor, and large groups of farmers met there in organized bees to construct causeways across the marshes. The road was totally inadequate for transportation purposes, however, for the territory lacked the funds necessary to conquer the intervening marshlands. Many of the settlers in the hinterland preferred to forward their supplies by small boats to Mt. Clemens via the Clinton River and thence to Pontiac,

¹⁶⁷Ibid., pp. 45-46.

about 25 miles northwest of Detroit and miles away from Area 117, by pack-horse.¹⁶⁸

In 1822 the legislature authorized the laying out of a road between Pontiac and Saginaw, miles north and east of subject area, and by January, 1823, the survey was completed. However, territorial funds were not sufficient to carry out the project.¹⁶⁹

Buley comments as follows on the road from Detroit to Chicago through Area 117:

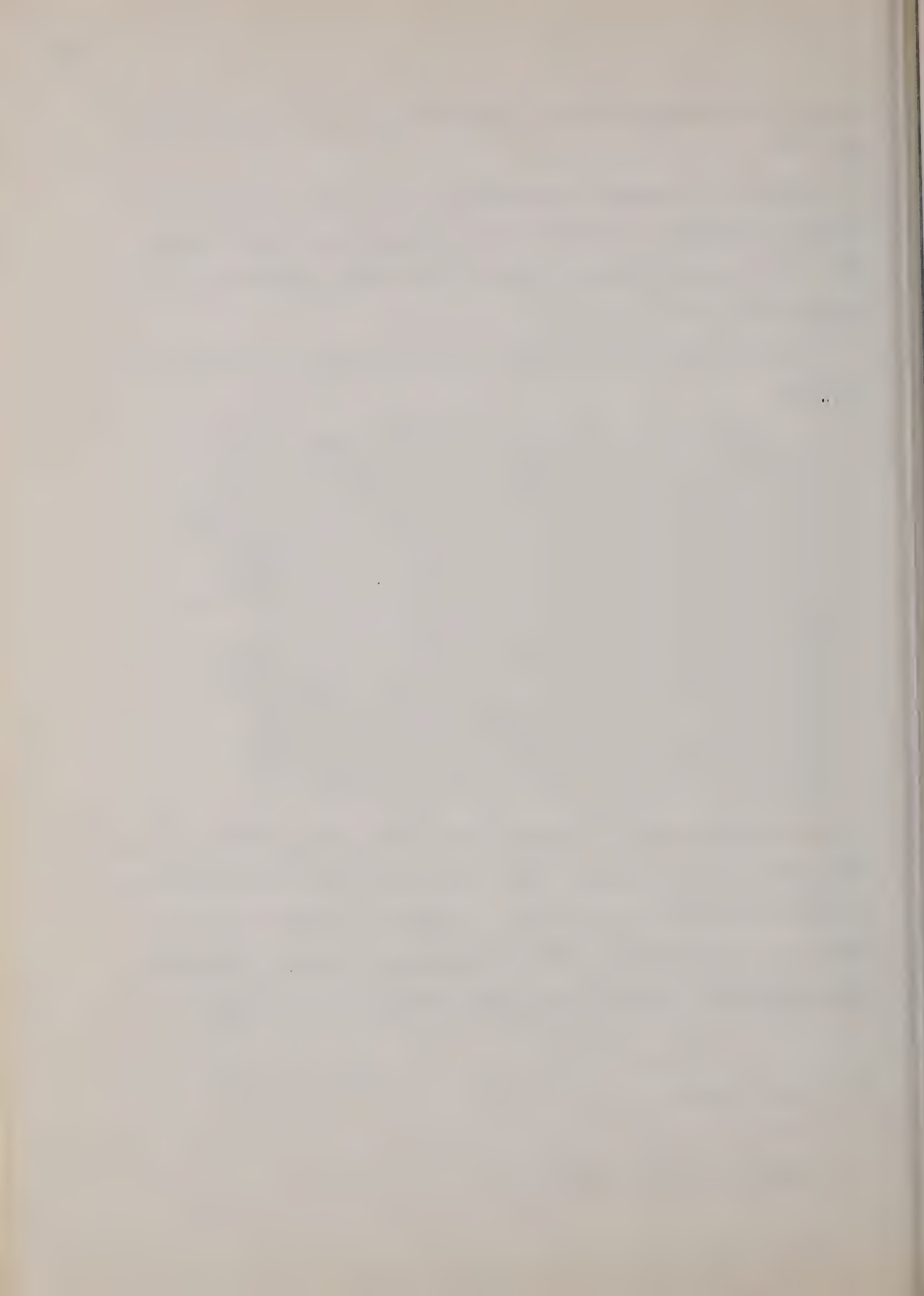
By the Chicago treaty of 1821 with the Chippewa, Ottawa, and Potawatomi the United States acquired the right to build a road through the Indian country from both Detroit and Fort Wayne to Chicago. Father Gabriel Richard, territorial delegate to Congress, got \$3,000 appropriated for the Detroit to Chicago survey. Much more was used, however, before the 263 miles were completed in 1832. Since a straight-line route necessitated cutting of much timber, the surveyors took the path of least resistance and followed the sinuous path of the Great Sauk Trail south and west through (or by) the later settled towns of Ypsilanti, Jonesville, Coldwater, Bertrand (just south of Niles), and thence into Indiana and around the southern end of Lake Michigan. Little was done toward construction until 1830 and then the Black Hawk trouble and the cholera caused delay. By 1831 dirt and logs made a fairly solid road to Ypsilanti, and stages could get through as far as Tecumseh. Beyond lay merely a wagon track or trail, but coaches got through to Niles in 1832, and from Niles to Chicago in the next year. . . .¹⁷⁰

It should be pointed out that the early roads in Michigan Territory were developed for military purposes. Only those directly connecting with Detroit had any use other than for the military. This need was hardly enough to justify their construction in 1822. It was not until the 1830's that the roads in Michigan Territory had sufficient civilian use to justify the

¹⁶⁸Ibid., p. 46.

¹⁶⁹Ibid.

¹⁷⁰Buley, op. cit., pp. 456-457.



expenditure of any great amount of funds for their construction. Even then had it not been for the insistence and enterprise of Governor Lewis Cass, little or no effort would then have been expended on a road system in Michigan Territory. However, such roads did not materialize for more than a decade after 1830.

Almon Ernest Parkins in his Historical Geography of Detroit, has made the following comment relative to the lack of need for roads in Michigan Territory until after 1820:

From the founding of Detroit in 1701 until the coming of American settlers early in the nineteenth century, there was little need of roads in southeastern Michigan, for most or all of the people lived along the larger navigable waters. Indeed, this was the situation until after 1820.¹⁷¹

Ferris Lewis wrote also relative to the inadequacy of roads in Michigan Territory as late as the 1830's:

. . . These first roads can hardly be called roads. Little if any road work was done except to cut down the trees and grade the bed a little. Wagons and carts crossed the little streams by fording them at shallow places. During rainy weather the roads became almost unusable. The clay ruts filled with water and the passing wagons, drawn by straining horses or oxen, mixed the mud into an almost impassable paste. During dry weather the clay hardened in the heat of the sun and the road became rough and bumpy. To haul heavy loads for any distance was impossible.¹⁷²

The following quotation is taken from the Detroit Daily Advertiser in 1836:

The road from Detroit to Ypsilanti (25 miles west of Detroit) looks at certain times as if it had been the route of a retreating army, so great is the number of wrecks of different kinds which it exhibits.¹⁷³

¹⁷¹Almon Ernest Parkins, The Historical Geography of Detroit (Lansing: Michigan Historical Commission, 1918), p. 253.

¹⁷²Ferris Lewis, My State and Its Story (Hillsdale, Michigan: 1939), p. 111.

¹⁷³Detroit Daily Advertiser, December 24, 1836.

In 1835 a German journalist visiting in Michigan wrote of the road to Ann Arbor:

The roads in Michigan, and most especially the forty miles from Detroit to Ann Arbor are, because of the lack of stone, the most abominable roads I have ever seen in the United States. Every three paces one encounters tremendous holes and big tree stumps, and it requires great skill to circumnavigate them, a skill, I am told, possessed by but few, since accidents are of frequent occurrence. I was glad that I had not taken the daily stage-coach from Detroit to Ann Arbor as I had originally planned, but preferred to rely on my own legs.¹⁷⁴

Dain comments on the transportation problem as follows:

The lack of adequate transportation facilities between the Atlantic seaboard and the Great Lakes served to complicate the problem of supply in Detroit. The high prices paid for imported merchandise in Detroit resulted largely from the high cost of carriage across the state of New York. Conversely, only products of a luxury nature which could absorb the high cost of transport could be sent from Detroit to eastern markets. . . .

Albany was the entrepot for the western country. Agents engaged in the storage and transport business made their headquarters there. They received goods from New York for shipment westward and forwarded the products of the West to their eastern destination. This business increased greatly after the War of 1812. Prior to that conflict most of the merchandise for the western country had been boated up the Mississippi from New Orleans, or carried by wagon over the mountains from Philadelphia to Pittsburgh, and then boated down the Ohio River. Detroit merchants, however, having little access to either of these routes, had for many years utilized the land-water route across the state of New York. Merchandise arriving in Albany from New York City was wagoned to Schenectady. From there it was transported in durham boats or bateaux up the Mohawk River, through the Utica and Rome Canal, down Wood Creek, across Oneida Lake, down the Oneida, Seneca, and Oswego rivers, and around the portage at Oswego Falls to Lake Ontario. Thence it was carried by schooner to Lewiston, wagoned around Niagara Falls, and shipped by durham boats or bateaux to Black Rock. Although land transport was required for less than twenty-five miles of this route, freight charges were high in comparison with water carriage elsewhere. This was due to the scarcity and small capacity of the river boats, the canal tolls, and the repeated transfer of cargo.¹⁷⁵

¹⁷⁴Karl Neihard, "Reise Mach Michigan" (1835). Translation in Michigan History, March, 1951, p. 46.

¹⁷⁵Dain, op. cit., pp. 49-50.

Conclusions re Transportation Facilities in
Michigan Territory as of 1822

It has been previously shown that as of 1820-1822 there were no roads or other adequate means of overland transportation to or within Michigan Territory. Also, there was no indication as to when such facilities could be made available. No likelihood existed for the immediate construction of roads west from Detroit, Lake Erie, or Lake St. Clair to the unsettled areas to the west.

The Detroit River and Lake Erie provided an excellent seasonal means of travel south and southeastward to the lake shores in Ohio, but as of 1820-1822 this region was of little importance as a market for Michigan Territory. Northern Ohio bordering on Lake Erie did not then have a sufficient population to provide a market for surplus produce from Michigan Territory. Lake Erie would have been of great importance to Michigan Territory only when connected with the Erie Canal, the construction of which was in progress in 1822. However, it was not completed until 1825, some three years subsequent to the valuation date of March 25, 1822, for the subject lands.

The rivers of southeastern Michigan Territory flowing into Lake Erie and the Detroit River provided transportation to some of the eastern portions of Michigan Territory lying in Area 66, but none of these streams reached into Area 117.

Several of the rivers of southwestern Michigan Territory flowing into Lake Michigan through Area 117 were suitable for water transportation, but they were of little consequence as of 1820-1822 as they did not lead to any settled areas which could have furnished markets. In 1822 the small settlement at Chicago on Lake Michigan was insufficient to induce ships to make

the long voyage from Detroit northward through Lakes St. Clair, Huron, and Michigan, which was necessary to reach the subject lands located from 900 to 1,000 miles away from Detroit by the water route.

Chicago could not be claimed as a market in 1822. In 1820 when Henry R. Schoolcraft visited it, he described the settlement as follows: "A small village of ten or twelve houses accommodating sixty people--half breeds, Canadian French fur-traders and Virginians."¹⁷⁶

In 1823 Major Stephen H. Long visited Chicago on his way to Pembina (on the Red River of the North at the Canadian Border). He gave the following description of the settlement at Chicago:

The village presents no cheering prospect as, notwithstanding its antiquity, it consists of but a few huts, inhabited by a miserable race of men scarcely equal to the Indians from whom they are descended. Their houses are low, filthy and disgusting, displaying not the least trace of comfort.

. . . It is not impossible he added, that at some distant period when the banks of the Illinois shall have been covered with a dense population and when the low prairies which extend between that river and Ft. Wayne shall have acquired a population proportionate to the produce they can yield, that Chicago may become one of the points in the direct line of communication between the northern lakes and the Mississippi, but even the intercourse which will be carried on through this communication will, we think, at all time be a limited one; the dangers attending the navigation of the lake and the scarcity of harbors along the shores must ever prove a serious obstacle to the commercial importance of Chicago.¹⁷⁷

¹⁷⁶Schoolcraft, op. cit., p. 250.

¹⁷⁷William Vipond Pooley, Settlement of Illinois (1905), p. 475.

SETTLEMENT AND DEVELOPMENT OF MICHIGAN TERRITORY

PRIOR TO MARCH 25, 1822

For years prior to 1818 when public lands in Michigan near Detroit and along Lake Erie were first offered for sale by the government, Detroit had been a military and traders' outpost in the wilderness. Its population in 1818 was estimated at 1,110,¹⁷⁸ and in 1820 was officially recorded as 1,422.¹⁷⁹ It was then only a market for the furs gathered by the Indians and French trappers from the hinterland. The early French inhabitants along the Detroit River and others flowing into Lake Erie were only poor farmers and developed no agricultural community of importance.¹⁸⁰ Most of the food-stuffs consumed had to be imported. Transportation overland was all but impossible, and on Lake Erie it was both hazardous and uncertain. The early French grants were all situated along the rivers flowing into Lake Erie, and no agricultural development existed away from the water. See map, Plate 10, page 213. No roads whatever led into the interior, and until 1818 the regions a few miles west of the Detroit River and Lake Erie were virtually unknown, except to the Indians, white trappers, and fur traders.

Michigan Territory suffered severely during the War of 1812. In 1815 it was practically destitute of funds when the government first began to survey the territory. As has been previously noted, the first reports of the surveyors were so discouraging that the survey was cancelled, and it was only after considerable persuasive insistence and effort on the part of Governor Lewis Cass that the surveys were renewed in July of 1816. See page 88.

¹⁷⁸Dain, op. cit., p. 88.

¹⁷⁹1820 Census.

¹⁸⁰Dain, op. cit., pp. 5-6.

The government surveys of public lands around Detroit, Lake St. Clair, and Lake Erie were completed in 1817, and the first public lands were offered for sale in 1818. See map, Plate 10, page 213. The later reports of the surveyors indicated that there was desirable land in some of the areas already surveyed. Others made their own investigations of parts of this region independently of the surveyors and reported favorable land existed.¹⁸¹ Leading citizens of Detroit did everything possible to offset the damage caused by the unfavorable reports relative to the lands which had been previously circulated. For this purpose they promoted the lands in eastern publications, and the Detroit Gazette, a paper reputedly widely read in the East, continually published articles about the desirable features of the Michigan area. Nevertheless, the stream of emigration still flowed westwardly far to the south.¹⁸²

Darby claimed that during a month-long journey from Geneva, New York, to Detroit he encountered hundreds moving to the west, but, as he said, "not one in fifty with an intention to settle in Michigan Territory."¹⁸³

In spite of the availability of good lands, there was no inducement for settlers to seek Michigan lands because of the lack of transportation comparable to the regions to the south. This lack of adequate transportation made it difficult to reach the area and economically impossible to send produce or goods from Michigan Territory to outside markets.

The scarcity of settlement within Michigan Territory, as compared to that in Ohio, Indiana, Illinois, Kentucky, and Missouri for the 1800-1820

¹⁸¹Ibid., pp. 72-75.

¹⁸²Ibid.

¹⁸³Darby, op. cit., p. 200.

period is clearly illustrated by the population figures as shown in the population table below:¹⁸⁴

TABLE 5
POPULATION FIGURES 1800-1820

	1800	1810	1820
United States	5,308,483	7,239,881	9,638,453
Kentucky	220,955	406,511	564,317
Ohio	45,365	230,760	581,434
Indiana	2,517*	24,520	147,178
Illinois	. .	12,282	55,211
Missouri	. .	20,845	66,586
Arkansas	. .	. .	14,273
Michigan	. .	4,762	8,896

*The census figures show 5,641 as the population of Indiana in 1800, but this included Michigan at that time. The population of Knox County, which was what is now Indiana, was indicated as 2,517 in 1800; the balance would have been in what is now Michigan, Illinois, and Wisconsin.

These population figures show that the tide of westward migration was increasing during the 1800-1820 period, but its path was generally far away from Michigan Territory down in the Ohio River regions and spreading out from that river and its tributaries. None of this influx of settlers turned towards Michigan Territory until 1818, and then it was only a very small proportion. From 1810 to 1820 Michigan's entire population increased from 4,762 to 8,896, an annual increase of only 414 persons. In the same period Indiana increased from 24,520 to 147,178, an annual increase of 12,266. For this period Illinois grew from 12,282 to 55,211, an annual increase of 4,293. And the State of Ohio had increased from 230,760 to 581,434, an annual increase

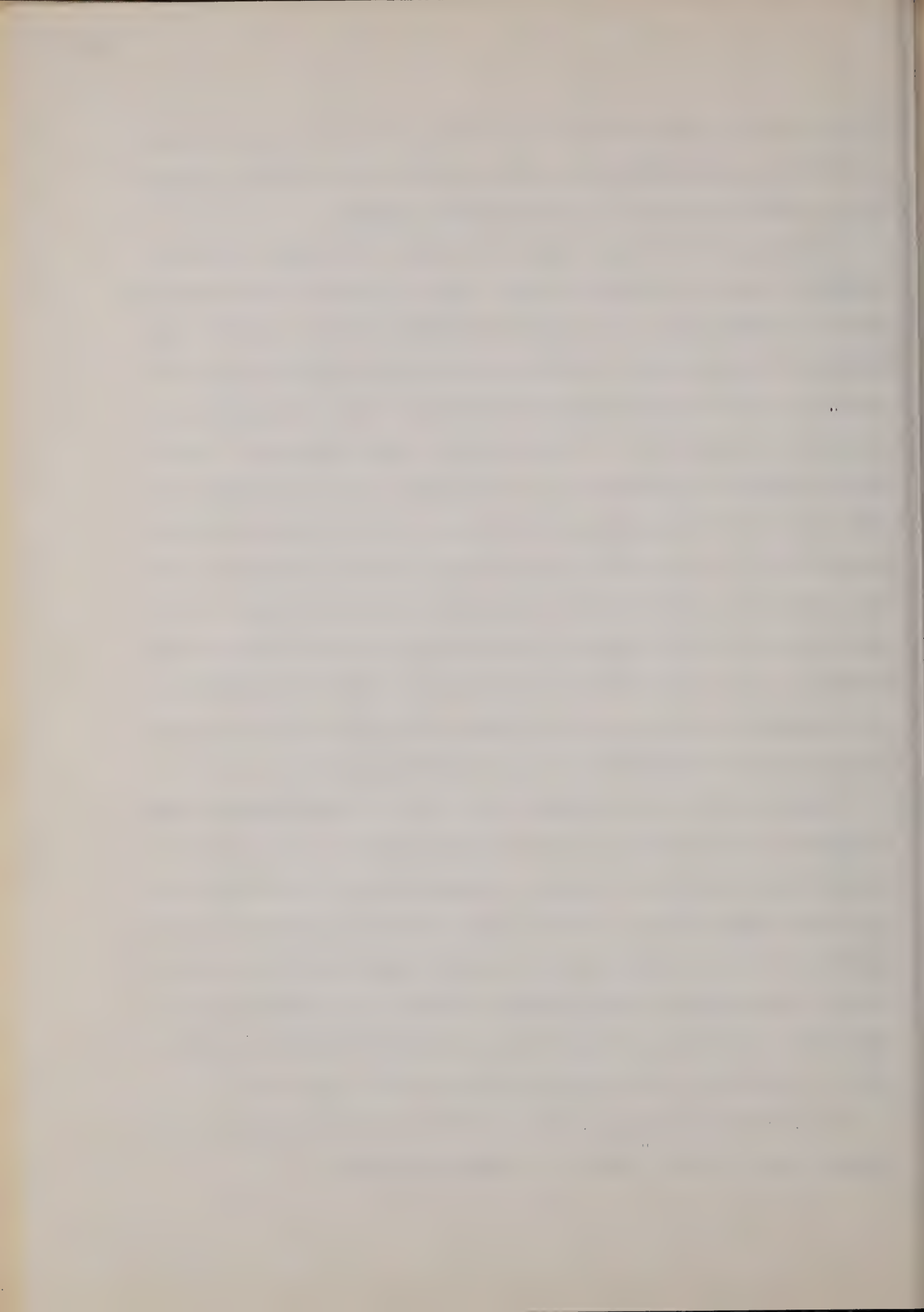
¹⁸⁴Twelfth Census, op. cit.

in population of 25,067 during the 1810-1820 period. No clearer indication of the relative lack of interest in Michigan Territory lands up to 1820 can be shown than is disclosed in these population figures.

During the 1800-1820 period practically all of the population growth in Indiana was in the southern portion. Area 99, Indiana, located south and east of the Wabash River, was opened for settlement in 1818 and 1819. The balance of Indiana north of the Wabash River was still Indian Territory in 1820. While most of the northern part of Ohio was clear of the claims of Indian title in 1820, even this state was very sparsely populated. The census for 1810 shows no population in northern Ohio west of Cleveland. The 1820 census discloses approximately 1,600 people in the ten counties west of Sandusky, Ohio. Huron County, located south of the City of Sandusky, Ohio, had a population in 1820 of 6,675. See map of Ohio, Plate 6, page 117. By the overland route these northern Ohio regions were separated from Michigan Territory by the almost impassable Black Swamp. In 1822 northern Ohio could not reasonably have been considered a market for prospective surplus goods from Michigan Territory because of its own scanty population.

Shipping on Lake Erie increased, and in 1818 the first steamboat added an impetus to the territory by cutting down the time and cost consumed in transportation from Buffalo. However, Michigan Territory did not have adequate water transportation to the east until the Erie Canal had been finally opened in 1825. As of March 25, 1822, the Erie Canal was still far from completion, an anticipated event of national importance which did not occur until 1825. But enough sections of the canal had been completed by 1822 to give an indication of its importance when it would be completed.

The settlement of Michigan prior to 1822 was principally close to water transportation. In this regard J. H. Lanman has written:





Detroit, French Town [on the River Raisin flowing into Lake Erie], Mackinaw, and the Sault de St. Marie, in 1820, were the principal settlements in the present organized limits of Michigan. At that period Detroit consisted of about two hundred and fifty buildings and contained a population of fourteen hundred and fifteen inhabitants, exclusive of the garrison; and was then a point of considerable activity and business. The island of Mackinaw, which was at that time a central mart of the fur trade, had a population of four hundred and fifty, which was augmented to two thousand at certain intervals by the accession of voyageurs, Indians, and traders, on their return from their hunting and trading expeditions in the forests upon the Upper Lakes. These were accommodated, for the most part, in one hundred and fifty houses, which comprised the village. Fort Michilimackinac stood on a eminence above the town, and Fort Holmes was located on the highest point of the island. This was afterwards called Fort George. Sault de St. Marie contained a village of fifteen or twenty buildings, which were then occupied by five or six French and English families, and was then, as in previous times, a prominent point of the Indian trade. It would seem that the principal ground of merchantile enterprise at that period was the fact, that a large amount of public money was here distributed in maintaining the garrisons connected with the public defence, which were then established at Detroit, Fort Gratiot, and Mackinaw.¹⁸⁵

Population

As was noted on page 41, of the total population of 8,896 for Michigan Territory in 1820, only 6,630 were in Area 66, Michigan 1. The census figures for 1820, shown in Schedule 1, page 42, disclose a population of 1,831 for Monroe County which contained Frenchtown. Some of this population was strung out along the River Raisin. Detroit had a population of only 1,422 and Wayne County outside of Detroit had 2,152. Macomb County, north of Detroit and bordering on Lake St. Clair, had 898. Oakland County, lying northwest of Detroit, had only 330. Oakland was the only inland county, but as will be noted later, settlement was clustered around the Clinton River.

The record of all public land sales in Michigan Territory, which are shown in detail in Table 7, page 214, discloses 243 sales of public land in

¹⁸⁵Lanman, op. cit., pp. 221-222.

1818, the first year the land was offered for sale, for a total of 44,954 acres, averaging 185 acres each. There were 90 sales in 1819 of 17,978 acres, averaging 200 acres each. There were 44 sales in 1820 of 5,535 acres, averaging 125 acres each, and 39 sales in 1821 for 3,530 acres, averaging 90 acres each. For the entire 1818-1820 period there was a total of 71,997 acres sold out of 2,304,300 acres proclaimed and offered for sale, or 3.125%. Darby, in writing of Detroit and the effect of these early land sales, made this statement:

Some part of the United States land in this area has been sold, but the sales did not operate to add much to the population of the country. The valuable fractions of sections were in a great share purchased by the resident inhabitants, and annexed to lands already in their possession.¹⁸⁶ (Emphasis supplied by appraiser.)

Manufacturing

As of 1822 there was no industrial or commercial activity of consequence in Michigan Territory. Whatever commercial or manufacturing establishments there were existed only for the local trade. There were no exports of any consequence. This is best illustrated by reference to Schedule 2, page 120, Digest of Accounts of Manufacturing Establishments in the United States and of their Manufactures, Territory of Michigan, which discloses the actual state of industry in that territory in 1822. This digest shows that as of 1822 in Michigan Territory, exclusive of what is now Wisconsin, there were only four lumber mills, four flour and meal mills, two saddle shops, two hat shops, four leather establishments, a cooper, a tinware shop, and a whiskey distillery. The value of the annual output was put at \$25,000, the total employment was 53 men and five boys, and the capital investment reported

¹⁸⁶ Darby, op. cit., pp. 199-200.



TERRITORY OF MICHIGAN.

Source: Digest of Accounts of Manufacturing Establishments in The United States and of Their Manufactures, made under the direction of the Secretary of State, in pursuance of a Resolution of Congress, March 30, 1822 (Washington: Gales & Seaton, 1823).

THE NAMES OF THE COUNTIES.	THE NATURE AND NAMES OF THE ARTICLES MANUFACTURED.	MARKET VALUE OF THE ARTICLES ANNUALLY MANUFACTURED.	THE KIND OF RAW MATERIALS EMPLOYED.	THE QUANTITY OF RAW MATERIALS ANNUALLY CONSUMED.	THE COST OF RAW MATERIALS ANNUALLY CONSUMED.	MEN EMPLOYED.	WOMEN EMPLOYED.	BOYS AND GIRLS EMPLOYED.	WHOLE QUANTITY AND KIND OF MACHINERY.	QUANTITY OF MACHINERY IN OPERATION.	AMOUNT OF CAPITAL INVESTED.	AMOUNT PAID ANNUALLY FOR WAGES.	AMOUNT OF CONTINGENT EXPENSES.	GENERAL OBSERVATIONS.
OAKLAND.	Lumber - - - - -	\$ 10,000	Timber - - - - -	- - - - -	\$3,625	7	-	-	2 saw mills - - - - -	In operation - - - - -	\$ 4,300	\$ 9,225	\$ 350	
CRAWFORD.	Bar lead - - - - -	\$ 4,500	Mineral and ashes of lead - - - - -	- - - - -	\$3,000	3	-	-	2 stone furnaces - - - - -	In operation - - - - -	\$2,000	\$ 500	\$ 375	One of these two establishments is said to be improperly managed; the mineral, &c. is traded for with the Indians. A more exact account cannot be given. The other is said to be difficult to be kept in repair, in consequence of the furnaces soon burning out. The article manufactured finds a ready sale at the south.
	Do. - - - - -	\$ 4 50 per cwt.	Do. - - - - -	- - - - -	Not known	6	-	-	2 ditto - - - - -	Do. - - - - -	2,600	1,200	250	
	Bread, hard and soft - - - - -	-	Flour - - - - -	112,000 pounds - - - - -	\$6,720	4	-	-	2 bakers' ovens - - - - -	Do. - - - - -	600	1,000	600	
	Lumber - - - - -	\$ 6,000	Timber - - - - -	- - - - -	100	6	-	-	1 saw mill - - - - -	Do. - - - - -	3,500	1,000	500	
	Smiths' work - - - - -	Various	Iron and steel - - - - -	- - - - -	-	3	-	-	2 shops - - - - -	Do. - - - - -	1,000	700	420	
	Traps, tomahawks, &c. - - - - -	-	Iron and steel - - - - -	- - - - -	-	2	-	-	- - - - -	- - - - -	500	350	380	Altogether for the Indian trade.
MACOMB.	Flour - - - - -	-	Wheat and corn - - - - -	- - - - -	-	2	-	-	2 bolts; 2 pair stones - - - - -	All - - - - -	\$3,000	\$ 420	\$ 325	\$ 3 per barrel.
	Leather - - - - -	\$ 400	Hides - - - - -	30 hides - - - - -	\$ 75	1	-	-	- - - - -	- - - - -	225	-	10	
	Lumber - - - - -	-	- - - - -	- - - - -	1,550	9	-	-	- - - - -	- - - - -	4,400	650	450	
MONROE.	Flour and meal - - - - -	\$ 10,000	Wheat and corn - - - - -	20,075 bushels - - - - -	\$ 10,000	1	-	1	2 pair of stones, &c. - - - - -	All - - - - -	\$ 20,000	\$ 300	\$ 100	
	Leather - - - - -	600	Hides - - - - -	- - - - -	300	1	-	1	Bark mill, &c. - - - - -	All - - - - -	1,210	-	300	
WAYNE.	Coopers' ware - - - - -	-	Hoops and staves - - - - -	- - - - -	\$ 100	1	-	2	3 pair of stones - - - - -	All - - - - -	\$ 1,600	\$ 180	\$ 25	
	Flour and meal - - - - -	-	Wheat and corn - - - - -	6,500 bushels - - - - -	5,000	3	-	-	2 do. do. - - - - -	All - - - - -	5,000	300	50	
	Ditto - - - - -	-	Ditto - - - - -	- - - - -	6,500	2	-	-	2 hatters' shops - - - - -	In operation - - - - -	-	2,500	-	
	Hats - - - - -	-	Wool and fur - - - - -	- - - - -	950	6	-	-	1 tanyard - - - - -	Ditto - - - - -	3,000	500	50	
	Leather - - - - -	\$ 2,500	Hides and skins - - - - -	250 hides; 100 skins - - - - -	-	4	-	-	1 do. - - - - -	Ditto - - - - -	5,000	400	200	
	Ditto - - - - -	-	Ditto - - - - -	525 hides; 328 skins - - - - -	37	2	-	1	1 saw, &c. - - - - -	Ditto - - - - -	500	125	10	
	Lumber - - - - -	500	Pine, oak, &c. - - - - -	- - - - -	2,000	4	-	-	- - - - -	- - - - -	-	800	-	
	Saddles, &c. - - - - -	-	Leather, &c. - - - - -	- - - - -	-	2	-	-	- - - - -	- - - - -	2,500	300	-	
	Ditto - - - - -	-	Ditto - - - - -	- - - - -	1,000	2	-	-	- - - - -	- - - - -	500	-	-	
	Tin ware - - - - -	-	Tin plate, &c. - - - - -	- - - - -	-	3	-	-	4 stills, &c. - - - - -	3 stills, &c. - - - - -	1,000	210	-	
	Whiskey - - - - -	-	Grain - - - - -	2,160 bushels - - - - -	-	-	-	-	- - - - -	- - - - -	-	-	-	

at \$52,500. It is obvious that industrial and commercial operations were not developing any great wealth in Michigan Territory as of 1822.

Minerals

While copper and iron ore had been reported as existing in the Upper Peninsula of Michigan Territory, there is no record of any production even there as of 1822. The first report of copper production in the Upper Peninsula lists 26,880 pounds of copper in 1845, 1,281,280 pounds in 1846, steadily increasing thereafter. Iron ores in quantities sufficient to justify mining were not found in the Upper Peninsula until 1840.¹⁸⁷ Neither copper nor iron ores had been found within the subject lands. No other minerals and salts which later added to the wealth of Michigan were produced until 1827 and later.¹⁸⁸ As of March 25, 1822, the value of the lands of Area 117, Michigan 1, Indiana, had not been enhanced by the discovery of any marketable minerals.

Fur Trade in Michigan Territory

Prior to 1822 the fur trade was the principal source of export from Michigan Territory. It was the one commodity that was sufficiently valuable to permit shipment to market by canoe or packhorse for any great distance. Shortly after the War of 1812 the American Fur Company had virtually a monopoly on the fur trade in Michigan. Still, Detroit merchants traded for furs and this trade provided a substantial income to those so engaged.

Buley has quoted the issue of the Detroit Gazette for August 13, 1819, to the effect that in 1819 importations resulting from the fur trade were

¹⁸⁷Hudgins, op. cit., p. 49.

¹⁸⁸Ibid., pp. 47-58.

about \$150,000, with exports much greater.¹⁸⁹

Prior to the settlement and development of the interior of Michigan Territory, the fur trade had been of immense importance to Detroit. The returns from sale of furs enabled Detroit merchants to pay for most of the essential goods brought to the city. By 1820 it was estimated that as many as 1,000 persons were employed in the fur trade throughout Michigan Territory.¹⁹⁰

Dain quotes the issue of the Detroit Gazette of January 4, 1822, as saying that \$300,000 in furs arrived and departed from Detroit in the summer of 1821. He has further stated that "As the Indians departed from the lands they had sold to the United States, and as the eastern farmers entered them and cleared them the fur-bearers disappeared," and that by 1825 the fur trade was only of minor importance to the merchants of Detroit.¹⁹¹

Lumbering

As was noted on pages 10 and 11 of this report, the forestation of Area 117 consisted primarily of deciduous trees, generally referred to as hardwoods, as distinguished from the few scatterings of pines. This fact is verified by the appraiser from the contents of the original field notes of survey. In these survey notes there were only a very few townships wherein the pine species were even mentioned.

As of March 25, 1822, there was no market value that could have been properly attached to the various timber species of Area 117. The lands first had to be partially cleared of trees by the settlers before crops

¹⁸⁹Buley, op. cit., p. 410.

¹⁹⁰Dain, op. cit., p. 121.

¹⁹¹Ibid., p. 123.

could be planted. He removed the trees by any means available. In many cases they were girdled with an axe and left to die. Crops were then planted between the girdled dead trees. Some trees were cut down while others were burned as they stood. Some, of course, were used for home and barn construction, for fuel, and as rails for fencing. But, in 1822 and for many years thereafter, there was no lumbering for the market in Michigan Territory, even in the northern white pine belt above the Grand River (Area 205, Michigan 1). These facts are borne out by all the authorities and historians on early lumbering in Michigan. George W. Hotchkiss, a leading authority on lumbering in the United States, has made the following comment relative to Michigan forests:

It may truthfully be said that up to the year 1850 little or no value was placed upon this most invaluable factor of a nation's wealth, so far as the supply from the forests of the northwest are concerned. The tide of emigration which sought the fertile lands of Michigan, was at first confined to the more southerly portions of the State, extending by but slow degrees, into the more northerly sections. The southern counties were densely wooded by forests of oak, cottonwood, poplar, black walnut, cherry, basswood, maple, beech, sycamore and elm, and the soil presented greater attractions to the pioneer, who was invariably a farmer, than did the more sandy soil on which the pine was usually found, and in addition in the absence of roads, was more readily accessible. Having only the creation of a farm in view, the early settlers placed no value upon the timber growth, his only effort being centered on the rapidity with which encumbering timber could be cut down and disposed of in the log heap. It is a safe assertion that of the original forest growth of Ohio, Indiana, Michigan and Wisconsin as much if not more has been destroyed by the axe and log heap of the pioneer and by forest fires, largely originating through the carelessness of the farmer and the logger, than has been utilized in commerce.¹⁹²

Hotchkiss in the same work has further stated relative to white pine, the only timber species which had market value in Michigan as late as 1885:

¹⁹²Hotchkiss, op. cit., p. 22.

It may here be noted that previous to 1885-90 the term "lumbering" as used in Michigan, Wisconsin and Minnesota, applied almost exclusively to work in the forests of white pine (*pinus strobus*), comparatively little hardwood being manufactured in those states, even norway or yellow pine (*pinus resinosa*), being but lightly esteemed, and altogether avoided in most sections until about 1875, after which time it began to assume a hitherto unknown value, as the white pine became less plentiful. . . .¹⁹³

As heretofore pointed out, Area 117 lay south of the Port Huron-Saginaw-Grand Haven pine belt of the Lower Peninsula of Michigan. Very few of the pine species stood on the subject lands in 1822.

Quaife and Glazer have written relative to the lack of commercial value of forests to the early settlers:

. . . To the first agrarian settlers interested only in farming, these heavy forests served as an obstacle, since, in preparation for a first crop, it was necessary to clear a certain amount of land. Large numbers of trees accordingly were felled and burned.¹⁹⁴

Eugene Davenport has written also even more forcefully of how little value the timber was to the settlers:

Were we unthinkablely wasteful in using black walnut for stable floors? Did we squander the resources of the country, and burn out our descendants? What else was the settler to do? Timber abounded. It had no commercial value. It occupied the ground which was needed to raise food for man and beast. The settler got rid of the encumbrance in the easiest and fastest way.¹⁹⁵

While the settlers used the timber in constructing their homes and developing their farms, there was no commercial lumbering in Michigan Territory at the time. In the first place, there was no local market for lumber, either for hardwood or pine, and no transportation facilities were available

¹⁹³Ibid., p. 530.

¹⁹⁴Quaife and Glazer, op. cit., p. 218.

¹⁹⁵Eugene Davenport, Timberland Times (Urbana: 1950), p. 25.

to markets outside of the area. Finally, the same situation existed in the areas along Lake Erie in Ohio where it was physically possible, though economically unprofitable, to ship lumber by boat.

Charles Moore, in writing of the early sawmills in Michigan, has stated:

From early days the settlers of Michigan took timber from the abundant forests to build their homes. The first sawmills were not extensive affairs, since the mill parts cost only from \$60 to \$500; they sawed to order for home consumption, and often were run in the manner of country grist mills, the log owner paying toll to the mill owner for the sawing.¹⁹⁶

Referring to other years in Michigan, as late as 1837, again Quaife and Glazer are quoted:

Many towns had small sawmills during the early thirties. It has been estimated that there were as many as four hundred supplying local areas at the beginning of statehood. These mills were usually expected along the numerous rivers at points where water power could be easily utilized.¹⁹⁷

William Etten, in referring to the beginning of the lumber industry in Michigan, has stated that the first lumber rafts were sent down the Grand River in 1838.¹⁹⁸

In addition to the fact that timber had no market value as of March 25, 1822, it must be noted that pine was the first to achieve value at a much later date.

Ferris E. Lewis, commenting on lumbering in Michigan, said:

When one spoke of lumber in those days [1850-1870] one usually referred to pine lumber. . . . Pine was used because it could be sawed more easily, was easily planed by hand, and could be more easily worked into the shapes desired than could hardwoods.

¹⁹⁶Charles Moore, History of Michigan (Chicago: 1915), p. 512.

¹⁹⁷Quaife and Glazer, *op. cit.*, p. 218.

¹⁹⁸William J. Etten, A Citizens' History of Grand Rapids, Michigan (Grand Rapids: 1926), p. 131.

In the United States there are thirty-four species of pine trees. Only three of these are native trees to Michigan. These three are the jack pine, the red or Norway pine, and the white pine. Of these three the white pine was by far the most valuable for making lumber.¹⁹⁹ (Emphasis supplied by appraiser.)

Another writer on the same subject, Richard C. Hulbert, made the statement that as late as 1870 only white pine had commercial value in Michigan:

It was in the early seventies of the last century [19th] that my father left the fishing hamlet of Epoufette, on the north shore of Lake Michigan on a timber-cruising trip. My father had reason to believe that there was some white pine timber on some . . . lands near Salt Point, on the south shore of Lake Superior . . . White Pine was the only kind of timber that had any commercial value in that locality at that time.²⁰⁰ (Emphasis supplied by appraiser.)

Thus, as of March 25, 1822, the hardwood timber on the lands of Area 117 was of no commercial value, and its only use to the settler was in construction of his buildings, barns, fences, and for fuel. The lack of such timber, as in the case of oak openings, actually created more value than did the hardwood timber on the lands itself.

Conclusions re Settlement and Development of

Michigan Territory as of 1822

Up to March 25, 1822, the growth of Michigan Territory had been negligible in comparison with that in other parts of the old Northwest Territory. All of Michigan's population was in regions far removed from Area 117, and could have had no influence on the market value of the subject lands in 1822. In 1820 the 6,630 people of Michigan Territory living along Lake Erie, the Detroit River, and Lake St. Clair constituted such relatively small communities

¹⁹⁹Ferris E. Lewis, Michigan Yesterday and Today (Hillsdale, Michigan: 1956), p. 204.

²⁰⁰Richard C. Hulbert, "Pioneers at Hulbert," Michigan History (Lansing: 1947) XXXI, p. 174.

that they could have offered only meager assistance to the development of the subject lands. Michigan Territory in 1822 was essentially an outpost, and the record of its development up to that time furnished no indication that there might likely have been any appreciable acceleration in its growth within the near future. The closest settlements in Michigan Territory then were more than 50 miles from the easternmost point of Area 117 with many miles of intervening forests and undergrowth.

In 1822 there were insufficient manufacturing and commercial activities within Michigan Territory to have either provided exports or to have attracted capital. Such enterprises, even if in prospect, could not have expanded until more settlers had arrived and better transportation facilities to markets provided.

ANALYSIS OF LAND CHARACTERISTICS WITHIN AREA 117

As of 1822 most of Area 117, Michigan 1, Indiana, was an unexplored wilderness known only to the Indians and the few trappers and Indian traders who occasionally traversed the territory. In 1822, while there had lately been some favorable comments on the character of the land in Michigan Territory, such reports were confined solely to regions near settlements along the waterways of eastern Michigan.

It is almost axiomatic that adverse criticism usually carries farther and lasts longer in the public mind than does favorable comment on the same subject, and Tiffin's early reports (see page 87) undoubtedly had been widely circulated. Thus in 1822 a prospective purchaser as a unit of such a large unexplored tract as the subject lands would most assuredly have approached the matter with great caution. No one would have thought of acquiring it without first having it thoroughly examined and a comprehensive survey made as to its features and surrounding conditions. With such few trails as existed, it would have been a difficult undertaking to have completely explored and examined the subject lands. However, in 1822 no prudent purchaser would have been willing to make an offer for the lands without first having obtained a reasonably accurate report as to all features which either enhanced or detracted from its market value for settlement and resale purposes.

Even today, with all of the techniques for mapping, surveying, and soil classifications, the experts do not claim to be able to determine beyond a reasonable degree of accuracy the exact classifications as to desirability and utility of all of the lands in Michigan. In discussing land inventories in Michigan, J. O. Veatch, Professor of Soils at Michigan State University, has made the following statement:

It is hardly to be expected that any inventory of the rural land resources of the state, even if in making it all existing sources of information are used, will be sufficiently complete or sufficiently accurate to satisfy all demands. Nevertheless, inventories are required for comparisons of competitive geographic divisions and certainly are essential for rural land planning. If the source of data and manner of calculation are known, figures may be properly interpreted and used accordingly.²⁰¹

All of the comments and observations heretofore noted as to the land characteristics of Michigan Territory were by laymen of the time who in general were only partially informed as to conditions or by writers at a later date who could have explored more carefully due to better roads, more settlement, and wider general knowledge of conditions. They reflect a fairly accurate general picture of land characteristics, but it would be unrealistic to depend on such comments for a fully unprejudiced analysis.

Discussion of Surveys

The field notes of survey of Area 117 made from 1824-1835 furnish presently the only means whereby the subject lands may be viewed dispassionately in their original condition. So to speak, they now constitute a window through which the lands may now be viewed independently of the interests of the respective contending parties to this litigation.

The surveys of Area 117 were made during the period from 1824 to 1831. Digests of the Original Field Notes of Survey are shown on pages 149 to 208 of this report. In addition to the lands in Area 117, these digests include the area east of subject lands in Area 66, Michigan 1, Ohio, for comparative purposes.

The surveyors were disinterested observers. As a result they naturally

²⁰¹J. O. Veatch, Agricultural Land Classification and Land Types of Michigan, Special Bulletin 231, Rev. (East Lansing: Michigan State College, 1941), p. 59.

have furnished to us an unbiased report relative to the lands as of the time of the surveys. When public lands were offered for sale at the land offices, surveyors' notes were available for inspection to prospective purchasers. It is reported that purchasers, rather than make a personal inspection, sometimes selected their tracts from an examination of these survey notes. Though made a few years after March 25, 1822, the notes reflected substantially the condition of the lands at the time of their original acquisition in 1822.

Surveyors' Instructions

The men who were retained to make the surveys of the Public Domain were impartial observers who were selected supposedly for their qualifications and abilities. They were under contract to the Government to perform a definite specified task with specific instructions, which included among other items a statement that claims for payment would not be allowed for careless or inaccurate work.

The surveyors were carefully instructed in detail as to how to run their lines but were also specifically instructed as to what other observations they were to make and write in their field notes. A portion of these instructions are quoted below. These instructions were issued in 1815, but they were in effect when the surveys of Area 117 were made.

You will be careful to note in your field book all the courses and distances you shall have run, the names and estimated diameters of all corner or bearing trees, and those trees which fall in your line called station or line trees notched as aforesaid, together with the courses and distances of the bearing trees from their respective corners, with the letters and numbers marked on them as aforesaid; also all rivers, creeks, springs and smaller streams of water, with their width, and the course they run in crossing the lines of survey, and whether navigable, rapid or mountainous; the kinds of timber and undergrowth with which the land may be covered, all swamps, ponds, stone quarries, coal beds, peat or turf grounds, uncommon, natural, or artificial productions, such as mounds, precipices, caves, etc., all rapids, cascades or falls of water; minerals, ores, fossils, etc.; the quality of the soil and the true situation of all mines, salt

licks, salt spring and mill seats, which may come to your knowledge are particularly to be regarded and noticed in your field notes.²⁰² (Last emphasis supplied by appraiser.)

Land Classifications from Surveyors' Notes Checked Against Current Information

In addition to summarizing the original notes of the surveyors themselves, this appraiser has also examined, township by township, the land classifications of southern Michigan shown on the "Soil Map of Michigan," contained in Soils and Land of Michigan written by J. O. Veatch of Michigan State University and published by the Michigan State University. Veatch is considered one of the foremost authorities on the soils of Michigan. The soil descriptions and characteristics shown on this map for Area 117 have been compared, township by township, with the surveyors' notes for the subject lands. This comparison has disclosed very few instances in which the soil descriptions contained in the original field notes of survey were not substantially in accordance with the Veatch soil classifications for the subject lands compiled in 1953.

In Bulletin No. 231, entitled Agricultural Land Classification and Land Types of Michigan, pages 60 to 65, J. O. Veatch has prepared a soil land inventory of the entire state. On page 60 of this Bulletin, in Table 1, his inventory and his land classifications are given, and this table is reproduced on the following page as Schedule 3. Veatch next gives a geographical distribution of classes of land in Table 2, which is reproduced on the following page as Schedule 4. As shown by this table the Lower Peninsula contained the major portion of the good land in the state and the southern half, of which Area 117 is a part, was approximately 82% first and second-class land.

²⁰²Surveying Instructions issued by Edward Tiffin, Surveyor-General, Northwest of Ohio, July 26, 1815, p. 10. Made applicable to Ohio, Michigan, Arkansas, and Missouri.

SCHEDULE 3

MICHIGAN SPECIAL BULLETIN 231, Page 60

Table 1. Soil-Land Inventory, Michigan.

SOIL	Acreage (estimates)	LAND CLASSIFICATION	Acreage (estimates)
WELL DRAINED:		CLASS (for general agricultural use):	
Loams, silt loams.....	8,775,000	FIRST. Highest in productivity or fertility. Level or not excessively hilly. Durable under cultivation.....	8,900,000
Sandy loams (all textural classes).....	7,100,000	SECOND. Fair to good land. Capable of present use or second in potential value for agriculture.....	10,450,000
Sands (all textural classes).....	9,000,000	THIRD. Marginal at present. Arable and possibly agricultural, but probable successful use remote, except for small areas favorably located ..	7,500,000
Clays, clay loams.....	625,000	FOURTH. Generally unagricultural except for small areas favorably located. In part entirely nonarable.....	10,500,000
POORLY DRAINED:		TOTAL	37,350,000
Heavier soils, loams to clays.....	2,700,000	STONY LAND. Stones or rock outcrop sufficient to interfere seriously with cultivation. In part entirely nonarable.....	1,750,000
Sandy soils.....	3,000,000	HILLY LAND. Local relief 50 to 100 feet or more. Slopes mostly in excess of 8 percent gradient.....	5,000,000
Peats, mucks.....	5,000,000	URBAN, INDUSTRIAL. All kinds of land unavailable for agricultural use because of occupance. Cities, factories, mines, highways, railroads, etc....	2,000,000
Water surface (excluding Great Lakes).....	1,000,000		
MISCELLANEOUS:			
Rock outcrop, coastal beach, mine dumps, fills, etc. .	160,000		

SCHEDULE 4

MICHIGAN SPECIAL BULLETIN 231, Page 62

Table 2. Showing Geographic Distribution of Classes of Land.

Region	First Class	Second Class	Third Class	Fourth Class
Lower Peninsula.....	8,000,000	8,000,000	5,000,000	5,200,000
South Half, Lower Peninsula ¹	6,800,000	5,150,000	1,900,000	693,000
North Half, Lower Peninsula.....	1,200,000	2,850,000	3,100,000	4,500,000
Upper Peninsula.....	900,000	2,450,000	2,500,000	5,300,000
West Half, Upper Peninsula.....	500,000	1,500,000	1,300,000	2,350,000
East Half, Upper Peninsula.....	400,000	950,000	1,200,000	2,950,000

¹Southward from Saginaw Bay including Huron, Tuscola, Bay, Saginaw, Gratiot, Montcalm, Kent, Ottawa, and all counties southward.

His next table, No. 3, reproduced herein and shown as Schedule 5 on the following page, gives an estimate, county by county, of the percentage of land in each of the above categories.

Table 3. Agricultural Land Classes in Michigan by Counties.

County	Acreage	First		Second		Third		Fourth	
		percent		percent		percent		percent	
Alcona.....	437,760	8	26	31	35				
Alger.....	588,800	13	17	30	40				
Allegan.....	533,120	25	38	19	18				
Alpena.....	373,760	26	22	31	21				
Antrim.....	304,000	16	36	32	16				
Arenac.....	239,360	28	25	16	31				
Baraga.....	586,880	7	19	28	46				
Barry.....	355,840	28	48	15	9				
Bay.....	283,520	50	35	11	4				
Benzie.....	200,960	5	31	44	20				
Berrien.....	364,160	39	39	16	6				
Branch.....	318,080	46	43	8	3				
Calhoun.....	443,520	43	38	15	4				
Cass.....	315,520	26	35	27	12				
Charlevoix.....	283,040	15	31	35	19				
Cheboygan.....	464,000	9	30	28	33				
Chippewa.....	1,006,720	13	17	20	50				
Clare.....	372,480	11	22	27	40				
Clinton.....	365,440	70	26	3	1				
Crawford.....	368,000	2	5	20	73				
Delta.....	748,160	14	25	16	45				
Dickinson.....	496,640	20	23	16	41				
Eaton.....	365,440	69	27	4	1				
Emmet.....	310,400	8	19	42	31				
Genesee.....	419,200	67	23	9	1				
Gladwin.....	332,160	10	32	22	36				
Gogebic.....	725,120	4	42	31	23				
Grand Traverse.....	298,880	10	31	26	33				
Gratiot.....	370,560	65	25	7	3				
Hillsdale.....	382,080	62	28	5	5				
Houghton.....	652,160	5	49	30	16				
Huron.....	546,560	71	27	1	1				
Ingham.....	333,920	38	47	13	2				
Ionia.....	370,560	60	33	5	2				
Iosco.....	364,800	7	20	16	57				
Iron.....	768,000	10	29	28	33				
Isabella.....	366,080	37	33	15	15				
Jackson.....	452,480	36	42	14	8				
Kalamazoo.....	359,680	44	34	13	9				
Kalkaska.....	366,720	4	23	29	44				
Kent.....	550,400	43	38	11	8				
Keweenaw.....	354,560	0	9	20	71				

County	Acreage	First		Second		Third		Fourth	
		percent		percent		percent		percent	
Lake.....	370,560	1	11	16	72				
Lapeer.....	426,240	54	35	9	2				
Leelanau.....	216,320	7	57	24	12				
Lenawee.....	475,520	68	28	3	1				
Livingston.....	363,520	33	47	15	5				
Luce.....	588,800	2	9	19	70				
Mackinac.....	668,160	2	12	41	45				
Macomb.....	302,080	60	22	15	3				
Manistee.....	359,680	4	29	26	41				
Marquette.....	1,196,800	4	17	18	61				
Mason.....	316,160	13	25	21	41				
Mecosta.....	365,440	13	31	26	30				
Menominee.....	675,840	15	34	11	40				
Midland.....	338,560	16	30	22	32				
Missaukee.....	372,480	7	28	39	26				
Monroe.....	366,720	58	17	23	2				
Montcalm.....	463,360	25	47	21	7				
Montmorency.....	359,040	5	17	24	54				
Muskegon.....	322,560	12	12	24	52				
Newaygo.....	544,640	9	19	29	43				
Oakland.....	567,040	32	46	16	6				
Oceana.....	347,520	10	37	29	24				
Ogemaw.....	371,200	13	22	25	40				
Ontonagon.....	853,120	21	43	20	16				
Osceola.....	369,280	5	50	34	11				
Oscoda.....	368,640	3	11	19	67				
Otsego.....	337,920	6	17	28	49				
Ottawa.....	361,600	32	33	27	8				
Presque Isle.....	433,920	19	24	21	36				
Roscommon.....	344,320	2	10	21	67				
Saginaw.....	529,920	48	37	12	3				
St. Clair.....	454,400	52	31	9	8				
St. Joseph.....	321,920	15	58	22	5				
Sanilac.....	624,640	68	23	3	1				
Schoolcraft.....	772,480	3	7	13	77				
Shiawassee.....	356,480	60	37	2	1				
Tuscola.....	529,280	46	36	13	5				
Van Buren.....	394,880	22	42	27	9				
Washtenaw.....	450,560	45	40	10	5				
Wayne.....	396,800	31	35	33	1				
Wexford.....	369,280	3	30	42	25				

The appraiser made an estimate of the area within Area 117 of those counties partially within the area. Table 6, page 135, gives the acreages of these counties partially within Area 117 plus the acreages of all other counties wholly within subject area and the percentages of each class of land as shown on Veatch's Table 3, Schedule 5 herein.

Table 6 indicates that all of the counties in whole or in part within Area 117 have more than 60% of arable land and only four were under 70% first and second-class land. The total area of first and second-class land is approximately 73%. The surveyors' notes for the subject lands indicated a large percentage of the lands consisted of first and second-class soils, but they also revealed swamp and marshland throughout Area 117.

A portion of a map entitled "Map of the Original Swamp Areas of the Lower Peninsula of Michigan, 1907, Compiled from John Farmer's Map of 1873 for Report by C. A. Davis on Peat," depicting the swamp lands of Michigan is shown in this report as Plate 7 on page 136. It shows the areas of swamp lands in Michigan as of 1873. This was before any appreciable drainage had been accomplished. Swamps were scattered profusely throughout Area 117, as shown on this map and noted in the original field notes of survey. Although some of them are quite extensive, they represent a relatively small percentage of the total area of the subject lands. Lanman, in writing relative to the soils of Michigan, indicates that at least some of these marshlands had utility:

The marshes, or wet prairies, are another valuable species of land. These most usually skirt the margins of the streams, and furnish hay for stock, both in the summer and winter. Large herds of Canadian poneys are turned out to feed upon the prairies during the winter, and in spring they return in good order. . . .²⁰³

²⁰³Lanman, op. cit., p. 325.

TABLE 6

LAND CLASSIFICATIONS BY COUNTIES
IN WHOLE OR IN PART
WITHIN AREA 117

County	Area in Acres	Per Cent 1st Class		Per Cent 2nd Class		Per Cent 1st & 2nd Class	Per Cent 3rd Class		Per Cent 4th Class	
		Acres		Acres			Acres		Acres	
Allegan (entire)	533,100	25	133,300	38	202,600	63	19	101,300	18	96,000
Barry (partial)	109,700	28	30,700	48	52,700	76	15	16,400	9	9,900
Berrien (partial)	207,100	39	80,800	39	80,800	78	16	33,100	6	12,400
Branch	318,100	46	146,300	43	136,800	89	8	25,400	3	9,500
Calhoun (partial)	328,500	43	141,300	38	124,800	81	15	49,300	4	13,100
Cass	315,500	26	82,000	35	110,400	61	27	85,200	12	37,900
Hillsdale (partial)	167,000	62	103,500	28	46,800	90	5	8,300	5	8,400
Ionia (partial)	12,000	60	7,200	33	4,000	93	5	600	2	200
Jackson (partial)	411,300	36	148,100	42	172,700	78	14	57,600	8	32,900
Kalamazoo	359,700	44	158,300	34	122,300	78	13	46,800	9	32,400
Kent (partial)	213,800	43	91,900	38	81,200	81	11	23,500	8	17,100
Ottawa (partial)	268,000	32	85,800	33	88,400	65	27	72,400	8	21,400
St. Joseph	321,900	15	48,300	58	186,700	73	22	70,800	5	16,100
Van Buren	394,900	22	86,900	42	165,900	64	27	106,600	9	35,500
Total	3,960,600	33.7	1,344,400	39.8	1,576,100	73.5	17.6	697,300	8.7	342,800

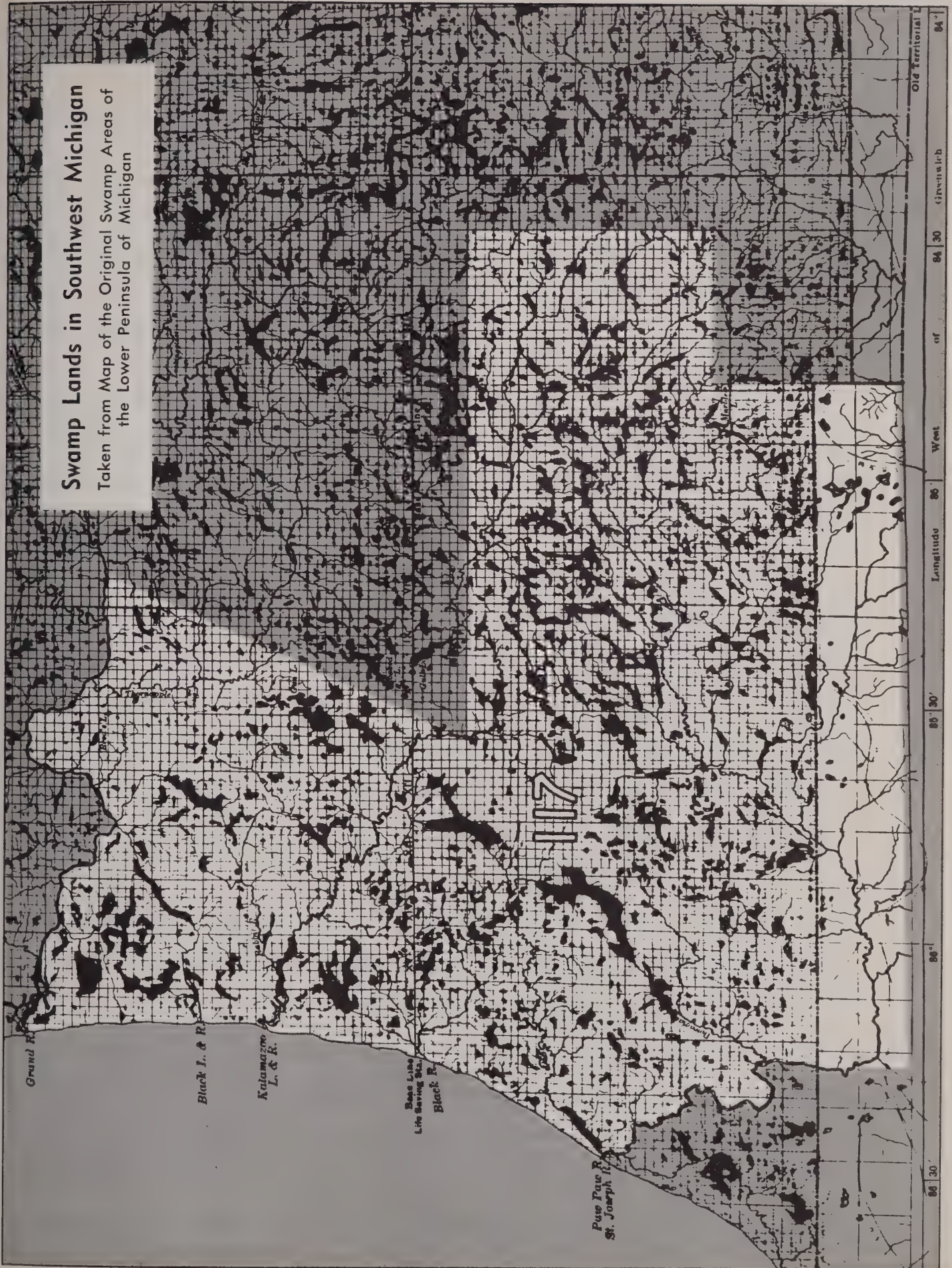
Notes:

The estimated total Michigan acreage within Area 117 is 3,960,600. An estimate was made of that portion of Area 117 in Indiana included in the appraised territory from Royce's map of Indiana. The estimate was of necessity approximate but indicated about 474,700 acres in that state. This Indiana acreage, plus the Michigan acreage estimated above, indicates roughly a total area of approximately 4,434,300 as against 4,144,330 acres shown in the Order of the Commission dated June 30, 1958.

The areas and percentages used herein are taken from J. O. Veatch's Special Bulletin 231 Revised, Table 3. The areas of partial counties have been estimated by the appraiser.

Swamp Lands in Southwest Michigan

Taken from Map of the Original Swamp Areas of the Lower Peninsula of Michigan

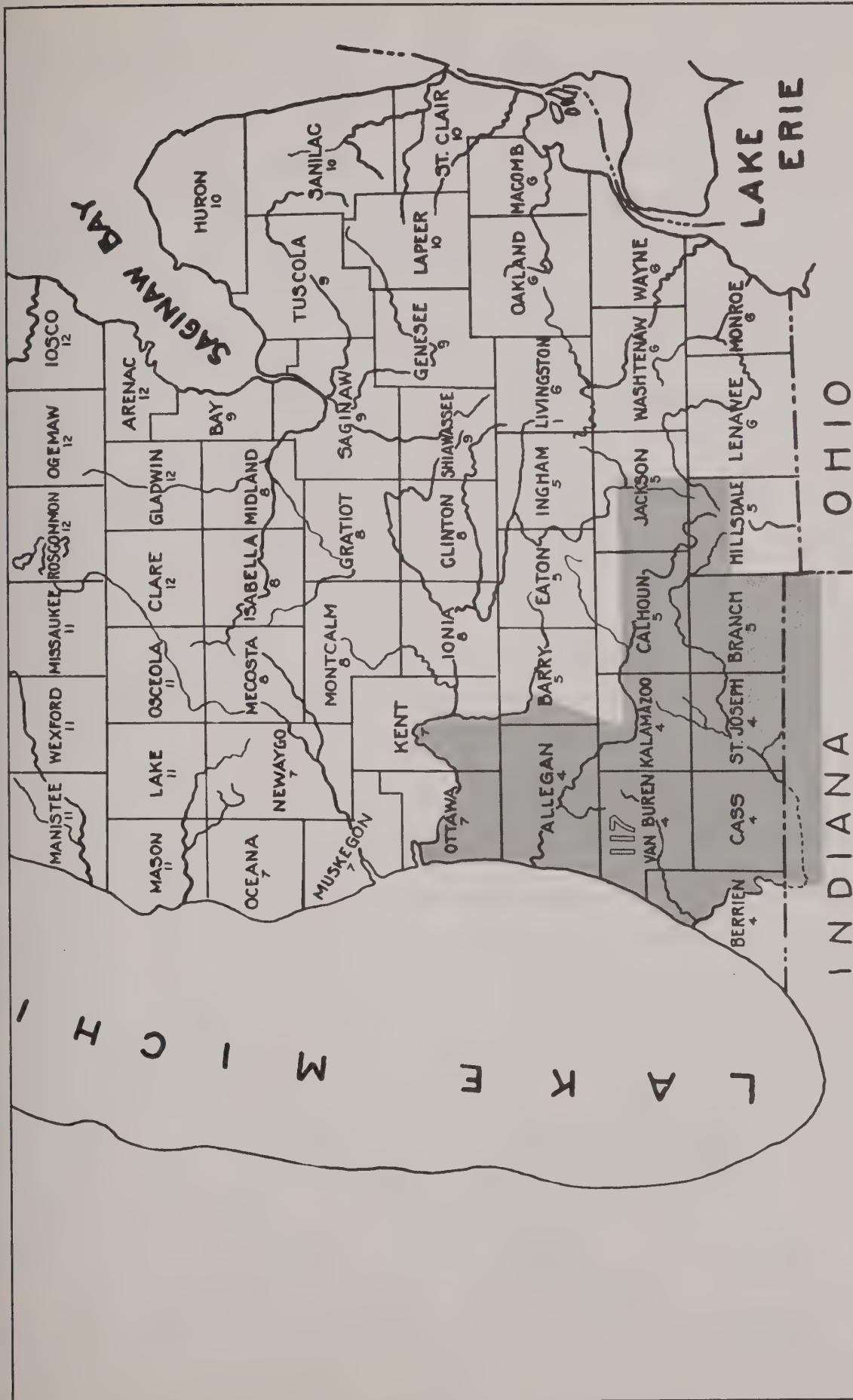


It is also important that in 1822, 80 acres was the minimum size lot available at the government minimum price of \$1.25 per acre, or \$100.00 per lot. It was recognized that for the average settler 40 acres was about as much as a family could clear and cultivate. Thus the swamp area need not have been a major factor in 1822 because in the majority of 80-acre tracts there would be a large enough parcel of land free of swamp or marsh and suitable for general farming.

Summary of Field Notes of Surveyors by County

The digests of the surveyors' notes (reproduced herein on pages 149-208) are of little assistance in arriving at an overall analysis of the area unless they are analyzed and summarized in such a manner that some conclusions may be reached. Various methods have been used to reduce this large amount of information to a usable outline, such as counting the remarks on each section line, study of the actual survey, and other means. These various means would have been available to people at the time. Since comparison between current studies of land characteristics and the original field notes indicates that the original notes were dependable, the appraiser has used the percentage figures cited in Table 6, page 135, to verify his analysis of the surveyors' notes.

He has made this summary county by county of the lands in Area 117 so it can be readily identified with the map and the area. See map, Plate 8, page 138. He has also included a brief outline of features, such as location, rivers, et cetera that would have a bearing on the desirability of the area to settlers, for this is one of the chief considerations. The appraiser took into consideration the surveyors' comments on the amount of first, second, and third rate and poor soil; the timber classification; and the comments on swamps and lakes and the rivers and streams. Then he took into consideration



COUNTIES OF MICHIGAN
Southern Portion Only

Map taken from "Archaeological Atlas of Michigan" by Wilbert B. Hinsdale, Michigan Handbook Series, No. 4, University of Michigan Press, Ann Arbor, 1931.

the percentage of arable land, as indicated by Veatch Table 3, page 133 herein. From this he made his estimate of how people of the time would have evaluated the land in order to determine whether it could be expected to sell rapidly to prospective settlers, or whether land in the county would be passed up by settlers in favor of more desirable areas.

The appraiser, in the course of his studies of land and land sales at the beginning of the nineteenth century, has read many descriptions of lands in Indiana, Ohio, Michigan, Alabama, Tennessee, and Mississippi written at the time, has examined the surveys and field notes of surveys of thousands of parcels, and has studied extensively the sales of these lands. He has found that there were factors other than the character of soil that were important in the sale and settlement of lands in this period. The richest land was not purchased in quantities at the beginning of settlement unless it was reasonably accessible to settled areas either by stream or established trails or roads. On the other hand, rich land close to rivers or roads brought premium prices. None of this existed to any extent in Area 117 as of 1822. No land was described in as glowing terms as was some land in Indiana. It is obvious that settlers would not travel miles through trackless forests in search of rich land when there was adequate land available accessible to roads, streams, or settled areas at a similar price. As of 1822 there was ample land available in Area 66 east of Area 117 which was closer to settled areas and with some arteries of transportation to such settled areas.

Thus the summary is the appraiser's analysis of the factors which prospective buyers of Area 117 would have taken into consideration in 1822 in establishing the potential value of the land.

The counties are classified as grade one through six, using a comparison with lands in Indiana and Ohio as a basis, first class desirable land in

Indiana and Ohio being considered as grade one; good land, well located, in Indiana and Ohio being considered as grade two; land described as second rate, hilly, etc. considered as grades three and four, and the less desirable considered as grades five and six (grade five being areas with some usable land, six being areas which indicated no land that would be attractive to settlers until all other land would be taken up or sold). Lands in Indiana and Ohio are used as a basis because some had been open for settlement for more than 30 years. Much of the land had been developed and people were familiar with its characteristics.

In following these summaries, the map, Plate 8, page 138, will identify the counties. Locations of principal rivers and streams are shown on Plate 4, page 101, and the trails referred to are shown on Plate 5, page 105. Since at the time there were no roads, only trails, in Area 117 in 1821-1822, the water routes were all that could be depended on for sure transportation.

Jackson County: Part only in Area 117. This county is within the eastern tier of counties of the subject lands adjacent to Area 66. It lies inland approximately 66 miles west of Detroit at the northern part, and about 60 miles west of Lake Erie farther south. It did not contain any rivers running east to Lake Erie or to the Detroit River large enough for any type of transportation except by canoes. The Sauk or Chicago Trail passed close to the southeast corner, and another trail ran through the center of the county which connected with the so-called Grand River Trail. The headwaters of the Grand River, which flowed westwardly into Lake Michigan are in this county. This county was surveyed in 1824-1825. The surveyors' notes described the land in the two northern tiers of townships as being first and second-class land, with some swamps and marshes. The southern tier was described as generally poor. The appraiser has classified the county as a whole as being grade three.

Hillsdale County: Part only in Area 117; the southern portion lay in Area 88, Michigan 1, Ohio. This county, lying south of Jackson County, is the only other eastern county within the subject lands adjacent to Area 66. It lies inland approximately 55 miles west of Lake Erie at the mouth of the River Raisin. The headwaters of a branch of the River Raisin arise in Hillsdale County, but this stream was usable only for small craft. The headwaters of the St. Joseph River, which flows south, west, and north into Lake Michigan, are in the county, but in this region it is usable only for canoes. The Chicago Trail crossed the portion of the county within the subject lands. Consequently, it was accessible by a trail, although it had no semblance of a road in 1821-1822. The county was surveyed in 1824-1825. The surveyors' notes describe the lands of this county within Area 117 as being generally second and third rate, with little first-class land shown. The appraiser has classified the county as being grade four.

Calhoun County: This county lies west of Jackson County, one of the northern counties of Area 117. There were no streams in this county flowing eastwardly to Lake Erie or Detroit. The St. Joseph River, flowing west to Lake Michigan, traversed the southern part of the county, and the headwaters of the Kalamazoo River, also flowing westwardly into Lake Michigan, are in the northern part. In this county these were streams usable only for canoes or similar small boats. There was a trail running east and west through the central part of the county. It came from Detroit and passed through what are now the Cities of Ann Arbor, Jackson, Battle Creek, Kalamazoo, and thence southwardly to what is now the Cities of St. Joseph and Benton Harbor at the mouth of the St. Joseph River in Berrien County, Michigan. Other small trails or footpaths crossed the county, but none connected any communities of later consequence. The county was surveyed in 1825-1826. The surveyors' notes

disclose first-class land in every township, some rich dry prairie, with less mention of third-class or poor soil. The appraiser has evaluated the county as being grade two.

Branch County: This county lies in the southern tier of counties in Michigan within Area 117. The St. Joseph River, flowing southwestwardly towards Lake Michigan, crosses the northwest corner of this county, but at this point it was usable only for small craft such as canoes. The Chicago Trail crossed this county from east to west, but as of 1821-1822 this was still only a trail or footpath and had no utility for vehicles. The surveys were made between 1825 and 1826 except the four southern townships which were completed in 1828. The surveyors' notes generally describe this county in favorable terms as having first and second-class soils. Less swamp and marsh are indicated in the notes than in most other counties within the subject lands. The southern tier of townships bordering on the State of Indiana is less favorably described than the three other tiers, but since these are partial townships, this fact appears to be of little importance. Since the Chicago trail passed through the county, travelers would have had an opportunity to see the character of land. As a result, it is likely this county might have received some favorable comment in 1822. The appraiser has evaluated this county as being grade two.

Kalamazoo County: This county lies inland completely within Area 117. It is traversed by the Kalamazoo River flowing west to Lake Michigan, and as has been previously noted, at a later date steamboats were able to reach the City of Kalamazoo in this county. Therefore, this river could have furnished water transportation to Lake Michigan for flatboats as of 1822. However, this fact was of little or no consequence in 1822 but might have had bearing on future land values. Several trails crossed the county, mostly

from east to west. One was known as the Kalamazoo Trail which ran through what is now Ann Arbor, Jackson, Battle Creek, Kalamazoo, and west to St. Joseph and Benton Harbor. Two other trails ran southwest from this trail to the old Sauk or Chicago Trail. At a later date roads followed some of these trails, but in 1822 they were only footpaths established and used only by the Indians, traders, and trappers. Seven townships were surveyed in 1826, five in 1827, two in 1829, and two in 1830. The surveyors' notes indicate a substantial amount of first and second-rate land in this county, with some rich lands and considerable open prairies. They also disclose less swamps than shown in some other counties of the subject lands. The appraiser has evaluated this county as being grade two.

St. Joseph County: This county lies in the southern tier of Michigan counties within Area 117. It lies inland, the State of Indiana adjoining it on the south. The St. Joseph River runs through this county. As this stream was large enough to float flat-bottomed boats, it was capable of use for transportation to Lake Michigan. The Chicago Trail ran across the southern portion of the county. Another trail ran northwest towards what is now Jackson, and two others went north towards what is now the City of Kalamazoo. Ten townships were surveyed in 1826, five in 1828, one in 1829, and two were resurveyed in 1835. The surveyors' notes indicate a substantial amount of first and second-class land, with considerable rich prairies. Some third-class soil and swamp are also shown. Since the Chicago Trail crossed this county, some of the above-described land features probably were known to travelers in 1822. The appraiser has evaluated this county as being grade two.

Kent County: Only the southern part of this county lies within Area 117. The Grand River, which forms the northern boundary of the subject lands

crosses this county. Since steamboats at a later date have been reported as far as the rapids at what is now Grand Rapids in this county, this river was capable of providing satisfactory water transportation to Lake Michigan. The Thornapple River runs north through the county to the Grand River. This latter river was sufficient for use by canoes and small boats. The Grand River Trail which followed the Grand River ran through this county. In 1822 this trail ran southeast to what is now Jackson and thence east to Detroit. It was a well-known trail or footpath, but it could not be considered as a road. Three townships were surveyed in 1830, three in 1831, and the balance to the north were surveyed in 1837. The surveyors' notes show second to first-class land in every township, but invariably they indicate the land is also interlaced with third-class lands, swamps, and marshes. Some rich bottom lands are mentioned. The fact that so much of the land in this county is interspersed with both poor soils and swamps would have rendered this area generally undesirable until settlement had sufficiently developed to enable settlers to select the better lands. The appraiser has evaluated this county as being grade three.

Barry County: Only a small portion of this county lies in Area 117. The greater portion lies within Area 111, Michigan 1. It was surveyed between 1826 and 1831. Its soil characteristics are about the same as Kent County, so it has been classified as grade three.

Ottawa County: The southern portion of this county lies in Area 117. The Grand River flows across the county, forming the northern boundary of the subject lands. The Grand River within this county was capable of furnishing good transportation. In the southwest corner the Black River flows into Lake Michigan. This river was not large enough for water transportation, but an inland lake connected to Lake Michigan would have provided

transportation to quite a bit of land. The only trail in the county at the time was along the Grand River extending from what is now Grand Rapids to Lake Michigan. The county was surveyed in 1830, 1831, and 1832. The surveyors' notes mention first-class land within only two out of eight townships. The majority of the lands is described as third class and poor, with some second class. The appraiser has evaluated the portion of Ottawa County within the subject lands as being grade five.

Allegan County: This county lies wholly within Area 117 along the shores of Lake Michigan. The Kalamazoo River flows through this county from the southeast corner westwardly to Lake Michigan. Since steamboats were later reported as far upstream as the City of Kalamazoo, it was capable of use to Lake Michigan for flat-bottomed boats in 1821-1822. There were no trails, except local ones in the county. The surveyors' notes disclose some first and second-class lands, but refer them as being interspersed with third-class land, poor land, and swamps. Three townships were surveyed in 1826; the balance in 1831 except two in 1832. From the surveyors' notes it would appear difficult to classify extensive areas as being first or second-class lands, although some mention is made of rich bottom land in places along the Kalamazoo River. The appraiser has evaluated the soils of this county as being grade four.

Van Buren County: This is a large county, all of which is in Area 117, bordering on Lake Michigan. The St. Joseph River was capable of furnishing good water transportation for a small portion of the county, since steamboats later traveled to Niles, in Berrien County. Two branches of the Paw Paw River flow through the county to what is now St. Joseph and Benton Harbor. However, this stream was large enough only for smaller boats to Lake Michigan. The trail from Kalamazoo to St. Joseph ran through Van Buren County. Across the

southeast corner ran another trail from Kalamazoo southwestwardly to the Chicago Trail. The county was surveyed in 1829 and 1830. The surveyors' notes have varied their descriptions of the soils from the finest land to those described as being "wet, horrid, dismal swamp." The appraiser has evaluated the soils of this county as being grade three.

Cass County: This county lies in the southwest corner of Area 117. In 1822 it was bounded on the south and west by lands to which the Indian title had not been extinguished. The St. Joseph River first flows southwardly across the extreme southeast corner of the county and again north immediately west of its southwest corner. The Dowagiac River, a small stream usable for small craft, flows only through part of the county into the St. Joseph River. The Chicago Trail ran across the southern part of the county, and three other trails branching out from the Chicago Trail extended northeast to what is now the Cities of Kalamazoo and Jackson. The surveys were made in 1828, 1829, and 1830. The surveyors' notes generally indicate the existence of better lands in this county than in any other county of the subject lands, some being described as "excellent, superb." Some swamps are mentioned and also considerable rich prairie. The appraiser has evaluated this county as being grade one.

Berrien County: Eastern portion only in Area 117. This county is in the extreme southwest corner of subject territory. About 10 to 12 miles front on Lake Michigan, and the St. Joseph River forms the southwestern border of that part lying within Area 117. The river was subsequently reported to be navigable for steamboats to Niles (in the southern portion; see page 102). Thus it enjoyed excellent water transportation to Lake Michigan. The Chicago Trail crossed the southern part of the county and across the northern part ran the trail through what is now Jackson, Battle Creek, and

Kalamazoo to the mouth of the St. Joseph River at what is now the City of St. Joseph-Benton Harbor. The county was surveyed in 1828, 1829, and 1830. The surveyors' notes speak very highly of the land in this county, in some cases terms such as "blessed with richest soil," "excellent land," and "man seldom sees such a country of land as St. Joseph of Lake Michigan, land and timber superb, excellent." In view of the transportation and description of soil and timber, the appraiser considers the county as grade one.

Conclusions re Soils of Area 117

From the contents of the surveyors' notes it appears that there was plenty of land within Area 117 that would have been suitable for farming based solely on the quality of the soils. On the other hand, there existed no satisfactory means of transportation to or within the subject lands in 1822. None of the rivers or streams flowing eastwardly into Lake Erie or the Detroit River provided transportation to the lands. The rivers within Area 117 flowing west into Lake Michigan provided a means of transportation, but there were no markets for the produce of the subject lands on Lake Michigan in 1822. There were trails into the subject lands, but not many, and they had no utility except as footpaths. Therefore, while some of the soils of Area 117 were fertile, they were completely inaccessible from settled areas in 1822. The surveyors' notes referred to swamps and marshes extensively, but the map, Plate 7, page 136, reveals that these swamps were extensive in only a few instances.

Taking into consideration the percentage of first and second-class land as shown on Table 6, page 135, and the comments from the original field notes of survey, it appears that approximately 75% of the subject lands would be attractive and salable for farming purposes.

From a consideration of all factors recited in this report, it is the opinion of the appraiser that a prospective purchaser of Area 117 in 1822 would have concluded that he could eventually have resold about 75% of the subject lands within the foreseeable future; the remaining 25% would not appear to have been salable until settlement had progressed to a point when there would be a demand for the less desirable land.

DIGEST OF
SURVEYORS' NOTES



DIGESTS
of
THE ORIGINAL FIELD NOTES OF SURVEY
by
COUNTY AND TOWNSHIP
for
AREA 117, MICHIGAN 1, INDIANA
and
AREA 66, MICHIGAN 1

Allegan County

- T 1 N, R 11 W Land rolling 1st class, rich and rolling 2nd class, level, rich 1st class and level 2nd class. All broken with poor prairie and swamp. Kalamazoo River crosses SW $\frac{1}{4}$; Gun River crosses N $\frac{1}{2}$. Timbergrowth - oak, sugar, beech, elm, walnut, butternut, lynn, ash, sycamore; little or no undergrowth.
- T 1 N, R 12 W Land rolling 2nd class and rolling 1st class, some level 1st and 2nd class. Kalamazoo River Crosses the Township east and west, many islands and river in rapids. "The soil of the land generally good. Surface rolling and in some places hilly. Timber beech, sugar, oak, ash, lynn & B. walnut. Undergrowth the same with Ironwood and in some places briars and vines. Everything considered this Township may well be designated 1st rate. Of its geology and mineralogy little can be said. No rock appears in site in the township, though in many places there are deep ravines and favorable places for observation. A deep stratum of earth covers the whole, but in my opinion may be formed from the configuration of the surface and the character of the pebbles seen. The underlying rock is probably calcareous sand rock. No metals were found, but several springs indicate the existence of iron ore."
- T 1 N, R 13 W Land rolling 2nd class and rolling 1st class, some level 2nd class. All broken by poor 3rd class, wet land, extensive swamps, six lakes. Kalamazoo River crosses N $\frac{1}{2}$ of township. Timbergrowth - maple, elm, poplar, cherry, pine, oak, butternut, lynn. Undergrowth same.
- T 1 N, R 14 W Land rolling 2nd class and rolling to gently rolling 1st class, also some level 1st and 2nd class, all broken with poor 3rd class land and extensive, worthless swamps. Six lakes in township. Timbergrowth beech, ash, hemlock, pine, elm, lynn, tamarack, sugar, butternut, maple. Undergrowth same.
- T 1 N, R 15 W Land rolling 2nd class, some thin soil and level 2nd class, a little rolling 1st class, all broken with poor 3rd class, rolling and hilly and some level with swamps. Four lakes. River flows through S $\frac{1}{2}$ of township. Timbergrowth - beech, pine, ash, elm, maple, pine, hemlock. Undergrowth same.
- T 1 N, R 16 W Land rolling 2nd class and rolling 1st class, also some level 2nd class. Streams throughout the township with extensive swamps. Timbergrowth beech, sugar, poplar, lynn, hemlock, maple; undergrowth same.

Allegan, cont'd.

- T 1 N, R 17 W Fractional township on Lake Michigan. Land considerably broken, some level, rich, rolling 1st and 2nd class, some swamp. Timbergrowth - beech, sugar, poplar, hemlock, ash, lynn, hickory.
- T 2 N, R 11 W Land rolling 1st class and rolling 2nd class, also level 2nd class, some level 1st class, all broken with poor land and swamp. Gun River flows through E $\frac{1}{2}$ of township. Timbergrowth - oak, beech, lynn, tamarack, willow, sycamore, elm, ash, sassafras; undergrowth same.
- T 2 N, R 12 W Land rolling 2nd class to rolling and gently rolling 1st class, some level 2nd class, all broken with swamp and prairie. Small lakes (eight). Timbergrowth - beech, lynn, sugar, birch, pine, tamarack, hickory, maple. Undergrowth same with sassafras and briars.
- T 2 N, R 13 W Land rolling 2nd class, some rolling 1st class and level 2nd class. All broken with poor 3rd class, cedar and tamarack swamps. Kalamazoo River flows through SW $\frac{1}{4}$; lake in NE $\frac{1}{4}$. Timbergrowth - beech, maple, oak, pine, tamarack, cedar, walnut. Undergrowth same.
- T 2 N, R 14 W Land rolling 2nd class, some rolling 1st class and level 2nd class, extensive areas of poor, 3rd class barrens and swamp. Timbergrowth - oak, beech, pine, ash, hickory, maple, sycamore. Undergrowth same with sassafras and hazel. Kalamazoo River crosses N $\frac{1}{2}$ of township.
- T 2 N, R 15 W Land poor 3rd class, rolling, low, wet, extensive swamps, some rolling 2nd class and a little level 2nd class, thin soil. Two lakes in township. Timbergrowth - pine, oak, hemlock, beech, tamarack, birch, ash, cedar; undergrowth thick - whortleberry, briars, alder, cranberry marsh.
- T 2 N, R 16 W Land rolling 2nd class, some rolling 1st class, all broken with extensive swamp and poor 3rd class land. Timbergrowth - hemlock, sugar, elm, ash, tamarack, beech, pine. Undergrowth same.
- T 3 N, R 11 W Land rolling 2nd class and rolling to gently rolling 1st class, some level 2nd and 1st class. River flows through N $\frac{1}{2}$ of township. Five lakes. Timbergrowth - oak, beech, ironwood, birch, pine, sugar, ash, lynn; undergrowth same, little or none.

Allegan, cont'd.

- T 3 N, R 12 W Land rolling 2nd class and level 2nd class, also rolling to gently rolling 1st class, all broken with swamp, prairie and poor 3rd class. Rabbit River flows through the township. Timbergrowth beech, sugar, lynn, ash, pine, tamarack. Undergrowth same, alder and willow.
- T 3 N, R 13 W Land rolling 1st class and rolling 2nd class with some level 2nd class and 1st class, all broken with swamp. Timbergrowth beech, pine, oak, sugar, lynn, tamarack, ash, butternut. Undergrowth same.
- T 3 N, R 14 W Land rolling 2nd class with some level 2nd class, extensive area of poor level and rolling barrens, and swamp. Kalamazoo River crosses southwest corner. Timbergrowth - beech, oak, ash, ironwood, elm, hickory, hemlock. Undergrowth same with sassafras, spice and briars.
- T 3 N, R 15 W Land rolling 2nd class to good, some rolling 1st class rich, and rich, low bottom lands along Kalamazoo River which flows through the central part of the township. Timbergrowth pine, oak, beech, sugar, ash, tamarack, maple, sycamore. Undergrowth same.
- T 3 N, R 16 W Land rolling 2nd class to high sand banks along shore of Lake Michigan, some rolling 1st class and level 2nd class. All broken with poor 3rd class and swamp. Kalamazoo River enters the lake and a bayou is formed at the mouth of the river; Low, wet level. Timbergrowth - beech, sugar, ash, elm, hemlock, pine. Undergrowth the same.
- T 4 N, R 11 W Land rolling 2nd class to rolling and gently rolling 1st class, some level 2nd class and level 1st class, all broken with swamp. Streams throughout the township; one lake. Timbergrowth - oak, beech, birch, pine, ash, elm, sugar, tamarack, maple. Undergrowth same.
- T 4 N, R 12 W Land rolling 2nd class to rolling 1st class and level 2nd class, all broken with poor 3rd class and extensive swamps. Streams throughout the township. Timbergrowth - beech, sugar, maple, pine, ash, elm, tamarack, hemlock. Undergrowth same with alder and willow.
- T 4 N, R 13 W Land rolling 2nd class, some rolling 1st class and level 2nd class, all broken with poor 3rd class and swamp. River flows through S $\frac{1}{2}$. Timbergrowth - beech, pine, oak, sycamore, maple, elm; undergrowth same.

Allegan, cont'd.

- T 4 N, R 14 W Land rolling 2nd class to good, some 1st class rolling and level 2nd class, swamp throughout township. Rabbit River crosses SE $\frac{1}{4}$. Timbergrowth - pine, oak, beech, hemlock, sugar, ash, elm, lynn. Undergrowth same.
- T 4 N, R 15 W Land rolling 2nd class and level 2nd class with some rolling 1st class and level 2nd class, all broken, with poor, level and rolling, poor 3rd class and swamp. Timbergrowth - lynn, beech, sugar, ash, elm, oak, maple, hemlock, tamarack, birch. Undergrowth same.
- T 4 N, R 16 W Land poor 3rd class, thin soil, wet, barren, also some rolling 1st and 2nd class land, sand banks along shore of Lake Michigan. Timbergrowth - beech, hemlock, ash, pine, maple; undergrowth same.

Barry County

- T 1 N, R 7 W Land rolling 2nd class, some 1st class, extensive areas of rough, poor land broken with swamp. Timbergrowth - oak, ash, beech, lynn, tamarack, hickory. Undergrowth - briars, grape. Plain, streams throughout township, four lakes in SW $\frac{1}{4}$.
- T 1 N, R 8 W Land rolling 2nd class and some rolling 1st class broken with extensive tamarack swamp and hilly barren ridges, sic lakes in township. Timbergrowth - oak, beech, sugar, lynn, elm, ash, tamarack, birch, maple, sycamore. Undergrowth hazel, boxwood, grapevine and sassafras.
- T 1 N, R 9 W Land rolling 2nd class and rolling 1st class broken by swamp, ten lakes in north half and west central part of township, south half open. Timbergrowth oak, hickory, beech, lynn, elm, ash, aspen, tamarack. Undergrowth sassafras and briars.
- T 1 N, R 10 W Land rolling 1st class, good, rich, also rolling 2nd class. Large lake northwest corner another large lake northeast, ten other lakes in township, well cut up water. Timbergrowth oak, hickory, beech, lynn, ash, elm, tamarack, maple. Undergrowth grapevine and sassafras.
- T 2 N, R 8 W Land rolling to hilly 2nd class broken with tamarack swamps especially in SE $\frac{1}{4}$, four lakes. Timbergrowth beech, sugar, lynn, elm, ash, tamarack, birch, maple. Undergrowth same and boxwood.
- T 2 N, R 9 W Land rolling 2nd rate also gently rolling 1st rate, all broken with swamp, fourteen lakes. Timbergrowth oak, ash, hickory, elm, sugar, beech, maple, aspen, ironwood, tamarack. Undergrowth same.
- T 2 N, R 10 W Land rolling 1st class, good and rolling 2nd class, all broken with swamp. Large lake NW corner of township, four other lakes. Timbergrowth oak, hickory, beech, lynn, tamarack, willow, aspen. Undergrowth same - grapevine, sassafras, hickory, alder.
- T 3 N, R 8 W Land rolling rich 1st class and rolling 2nd class. River crosses township, five lakes. Timbergrowth - ash, oak, lynn, boxwood, beech, sugar, elm, butternut. Undergrowth vines, briars, sassafras.
- T 3 N, R 9 W Land rolling 2nd rate and rolling 1st rate, with some level 1st and 2nd rate, broken with swamp. River through N $\frac{1}{2}$ of township, another through the west half, five small lakes. Timbergrowth ash, oak, beech, tamarack, sugar, elm. Undergrowth same.

Barry, cont'd.

- T 3 N, R 10 W Land rolling 2nd class broken by swamp, lakes through SW $\frac{1}{4}$ and N $\frac{1}{2}$, stream runs north and south through center of township. Timbergrowth oak, beech, lynn, ash, hickory, elm, pine, tamarack; little or no undergrowth.
- T 4 N, R 8 W Land rolling 1st rate and rolling 2nd rate with some level 1st and 2nd rate. All broken with tamarack swamp. River crosses township, three lakes. Timbergrowth beech, sugar, lynn, ash, tamarack, elm, maple; undergrowth same and ironwood.
- T 4 N, R 9 W Land rolling 1st class rich and rolling 2nd class, some level 1st class rich, all broken with marsh and swamp. Apple river crosses SW $\frac{1}{4}$. Timbergrowth - oak, tamarack, elm, beech, sugar, maple, butternut. Undergrowth - vines, hazel, ironwood, boxwood, sassafras.
- T 4 N, R 10 W Land rolling 1st, rich to rolling 2nd class, also some level 1st class, rich. Apple river runs north and south through E $\frac{1}{2}$ of township, lakes in west half, broken by swamp and some prairie. Timbergrowth oak, ash, lynn, elm, beech, sugar, butternut, hackberry, aspen; undergrowth same, little or none.

Berrien County

- T 3 S, R 17 W Land level and rich (blessed with richest soil), some rolling 1st rate rich, some level 2nd rate and wet swampy areas. Township crossed by stream, small tributary bordered with marsh area, large lake in Township; timber growth - beech, sugar, lynn, poplar, elm, oak, hickory, walnut, butternut and sycamore.
- T 3 S, R 18 W Land 1st rate, barren and rolling, 2nd rate to poor, small amount of level rich and rolling good land, with sand hills along Lake Michigan. Timber growth - hemlock, beech, pine, R. and Y. oak, poplar, huckleberry and butternut.
- T 4 S, R 17 W Land rolling 2nd rate (oak openings) sandy with some rolling rich land, small amount of level, wet prairie and swamp areas, and level rich land. Small lake with adjacent swamp area. Timber growth - sugar, beech, poplar, oak, hickory, ash, ironwood, spicewood; undergrowth - oak, willow and grapevine.
- T 4 S, R 18 W Land rolling 2nd rate cut with some swamp and wet areas, some level, wet but rich land. This Township is crossed by Paw Paw River which is bordered by swamp areas, also crossed by St. Joseph River and its tributaries. Timber growth - elm, beech, lynn, sycamore, ash, oak, walnut and pine.
- T 4 S, R 19 W Borders Lake Michigan, a fractional Township; some rolling 2nd rate land, small spotty areas of level rich bottom land, with banks along the river cut with ravines. The Paw Paw River flows into Lake Michigan at this point and is bordered by low wet swamp areas, with bayous and marsh growth. Timber principally ash, maple, elm and hickory. Banks along the Lake shore are about 40 feet high and extend back level about one-quarter mile.
- T 5 S, R 17 W Land rolling 2nd class with some rolling 1st class; large, level swamp and wet area in central part of Township, some level rich land. Timber growth - W. and R. oak, sugar, beech, poplar, lynn and ash, tamarack and cedar.
- T 5 S, R 18 W Land rolling 1st rate - rolling 2nd rate with level wet area and level rich land. Timber growth - lynn, sugar, walnut, ash, sycamore, elm and poplar. Crossed by St. Joseph River, with some high banks. Low, wet swamp areas in southwest part of Township.



Berrien, cont'd.

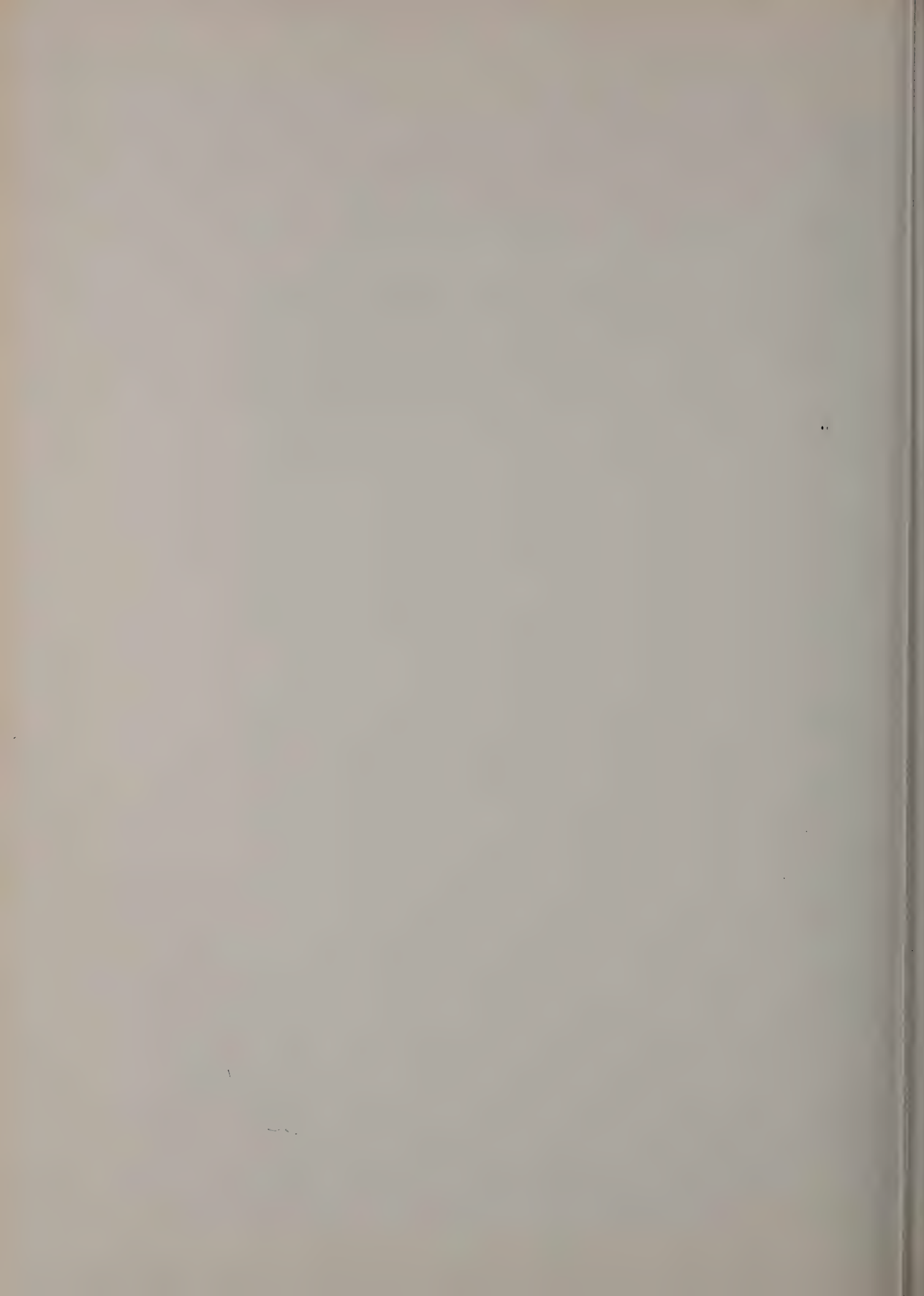
- T 5 S, R 19 W Borders Lake Michigan. Land principally rolling 1st and 2nd class, with some flat 2nd class, swamp, 3rd rate land and marsh area, together with open oak, plain and hilly sandy 3rd rate land. Township is crossed by small creeks and St. Joseph River crosses the northeast corner; three small lakes with marsh areas. Timber growth - ash, oak, lynn, pine, maple, aspen, hickory with undergrowth ironwood, greenberry and spice.
- T 6 S, R 17 W Land rolling, rich, 1st class, scarcely equalled in richness, superb, excellent land, broken with some swamp and marsh. Crossed by St. Joseph River on west side 7 to 8 chains wide; has 7 islands, some open prairie on west side of River; 10 small lakes in Township. Timber growth - sugar, beech, cherry, ash, lynn, hickory, spicewood, walnut and butternut.
- T 6 S, R 18 W Land primarily rolling, 1st rate, with some rolling 2nd rate and level 3rd rate and swamp area bordering small rivers. Some dry level, 1st rate land with open prairies on east side of township. St. Joseph River cuts across northeast corner of Township. Timber - poplar, lynn, beech, ash, maple, oak, sugar and sycamore, with undergrowth of sassafrass and vines.
- T 6 S, R 19 W Lake Michigan touches northwest corner of Township. Land along Lake sand hills, 3rd rate, wide beach; land in Township predominantly level to plain, 2nd class with some rough oak plains and rolling 1st class land. Southwestern part of Township covered by large swamp and marsh area. Timber growth consists of oak, beech, maple, ash, white wood, aspen and pine with undergrowth- grass, sassafrass, briar and alder.
- T 6 S, R 20 W Fractional Township on Lake Michigan, wide beach, with hilly, back sand hills along Lake. Back land is rolling to hilly, 2nd and 3rd rate, with small areas of level land. Timbergrowth - beech, ash, lynn, hemlock and pine.
- T 7 S, R 17 W Land gently rolling, 1st rate, rich, with some level rich land. "Man seldom sees such a country of land as St. Joseph of Lake Michigan, land and timber superb, excellent." Timbergrowth - W. R. Y. oak, hickory, lynn, beech, ash, sugar, butternut, walnut, cherry. Township is crossed by St. Joseph River and Dowagiac River in which are located 9 small islands.

Berrien, cont'd.

- T 7 S, R 18 W Land principally rolling, 1st class; some 2nd rate, rolling land; barren prairies with 2nd and 3rd rate clay soil. Areas of open oak, plain good soil, low level rich land along river. St. Joseph River crosses the one-half of the Township in which are located 4 small islands. Thick woods with timber growth primarily yellow and white oak, also lynn, hickory, ash, elm; undergrowth - whortleberry and willow.
- T 7 S, R 19 W Land rolling 1st rate and flat 2nd rate with some rolling 2nd class land and level wet marsh and swamp areas. Timber growth - beech, sugar, lynn, oak, ash, whitewood. Undergrowth - haxel and greenberry. $W\frac{1}{2}$ of township is crossed by Galy Creek, with a swamp area in north central part of township.
- T 7 S, R 20 W Fractional township on Lake Michigan, wide beach with high bank, bluff from 40 to 80 feet on south to easy slope and good access as on north, land back principally rolling 1st class with some level 1st class, timber growth - beech, ash, elm, oak and sugar.
- T 7 S, R 21 W Fractional township on Lake Michigan, land rolling 2nd rate and uneven; 2nd rate oak plains broken with swamp, high bluff along lake shore, sand and clay up to 80 feet high. Timber growth - beech, ash, lynn, oak and maple.
- T 8 S, R 17 W Land 1st rate barren and rolling, 1st class with some small marsh area. Township crossed by St. Joseph River, on west side river - dry, rich prairie. Timber growth - W. R. Y. oak, hickory, lynn, ash, aspen, beech, sugar; some heavily timbered areas, other open; much timber cut.
- T 8 S, R 18 W Land principally open oak barrens, 2nd rate, some rolling and level 1st class land, small amount of low level swamp and marsh area in central part of Township. Some barren sandy areas. Timber principlly oak with dense growth of timber in some area, other type - beech, sugar, ash, lynn, hickory, walnut, cherry, with undergrowth of whortleberry and willow. Small river, sluggish and marsh; two small lakes.
- T 8 S, R 19 W Land rolling 1st class to flat 2nd class, with swamp and marsh area in northwest quarter of township. Timber growth - lynn, ash, elm, beech, sugar, cherry and oak. Undergrowth - alder, ironwood and grass. Two small lakes in Township.

Berrien, cont'd.

- T 8 S, R 20 W Land rolling 1st and 2nd class with some level 2nd class and low wet swamp areas, particularly on east side. Small lake in this Township and river crosses southwest corner. Timbergrowth - beech, ash, lynn, elm, tamarack, with undergrowth of alder, willow and spice wood.
- T 8 S, R 21 W Fractional Township bordering Lake Michigan. Sandy beach, with loose sand hills, back land principally rolling 2nd class, with some rolling 1st class and uneven 2nd class. Swampy at north mouth of river where lake goes through large bayou. Timbergrowth - beech, ash, sugar, lynn with undergrowth briars, vines and fox grape.



Branch County

- T 5 S, R 5 W Land rolling 2nd class to rolling 1st class and level 2nd class. Streams throughout Township bordered by extensive swamp and marsh. Timbergrowth - beech, sugar, oak, ash, elm, lynn, sycamore, hickory, tamarack; undergrowth - grapevine, spice, prickly ash, briars.
- T 5 S, R 6 W Land rolling 2nd rate to level 2nd rate with dry rich open prairie central and west central part of Township, some hilly, barren and stoney. Five lakes in central part of Township. North and south parts broken with swamp. Timbergrowth - lynn, sugar, beech, ash, hickory, oak, elm, walnut, sycamore; undergrowth - prickly ash, spice, sassafrass, grape, hazel, grass and willow.
- T 5 S, R 7 W Land rolling 1st and 2nd class with some level 2nd class. Township crossed by St. Joseph River and broken by extensive swamp with thick growth of tamarack. Other timbergrowth in township - oak, elm, maple, beech, sugar, ash and walnut.
- T 5 S, R 8 W Land rolling 2nd rate, some 1st rate, also, level 2nd rate. This Township is crossed by St. Joseph River; has two lakes. Timbergrowth - elm, ash, oak, hickory, aspen, beech, sycamore, W. wood, walnut. Undergrowth - hazel, aspen, grape and briars.
- T 6 S, R 5 W Land level rich to rolling 1st class and rolling 2nd class, some level sandy, 2nd class. Large lake in SW $\frac{1}{4}$ of Township, also, swamp and 3rd class land. Timbergrowth - sugar, beech, ash, oak, sycamore, elm, walnut, lynn, poplar, butternut. Undergrowth - ironwood, prickly ash, spice, sassafrass, hazel.
- T 6 S, R 6 W Land rolling to level 2nd rate, oak opening and wet prairie, some rolling 1st rate and level 1st rate land. All broken with uneven 3rd rate and swamp. Timbergrowth - oak, beech, sugar, ash, elm, lynn, tamarack, W. wood, sycamore, walnut, hickory. Undergrowth - spice, hazel, sassafrass, rose, willow.
- T 6 S, R 7 W Land, level 1st rate with some rolling 1st and 2nd rate. Six lakes in E $\frac{1}{2}$ of Township and some swamp in W $\frac{1}{2}$. Timbergrowth - sugar, beech, walnut, W. wood, ash, lynn, tamarack. Undergrowth - spice, sassafrass, rose, willow, hazel, grapevine, briar and prickly ash.

Branch, cont'd.

- T 6 S, R 8 W Land rolling 1st rate to rolling 2nd rate, some level 1st rate, some marsh and swamp in $W\frac{1}{2}$ of Township, one lake in east central part of Township. St. Joseph River touches northwest corner. Timbergrowth - sugar, hickory, walnut, beech, oak, elm, lynn, ash, W. wood, butternut. Undergrowth - spice, briar, prickly ash, hazel, grape and sassafrass.
- T 7 S, R 5 W Land level 1st class to rolling 1st class, some rolling 2nd class and level 2nd class. Three lakes in northwest corner of Township which is broken by swamp, particularly in southwest central part. Timbergrowth - beech, sugar, ash, hickory, elm, walnut, lynn, oak, maple, sycamore and tamarack. Undergrowth - spice, sassafrass, briar.
- T 7 S, R 6 W Land level 1st class to rolling 1st and 2nd class, also, level 2nd class and broken by extensive low, uneven, wet prairie and swamp. Large lake west central part of Township with bordering swamp, also, large lake in $SE\frac{1}{4}$ with swamp east of lake. Timbergrowth - walnut, B. & W. oak, hickory, sugar, beech, tamarack, ash, cherry, and sycamore; undergrowth - sassafrass, hazel, grapevine and briar.
- T 7 S, R 7 W Land level and 1st class, rich soil, some wet, but good, also, rolling 2nd and 1st class, broken by marsh and swamp, particularly in $NW\frac{1}{4}$ and along streams. Two lakes in Township. Timbergrowth - beech, ash, lynn, oak, cherry, hickory, elm, poplar, sycamore, butternut and walnut. Undergrowth - briar, grapevine and hazel.
- T 7 S, R 8 W Land level 1st rate to rolling 1st rate, some rolling and level 2nd rate. Township broken with swamp along small streams. Timbergrowth - B. W. oak, ash, hickory, sycamore and butternut. Undergrowth - sassafrass, wild rice, flag willow, grapevine and hazel.
- T 8 S, R 5 W Land rolling 2nd class and barren, with thin soil, some rolling 1st class and open oak plains. Streams cross Township with some marsh and swamp. Timbergrowth - beech, ash, elm, walnut, W. wood, lynn, oak, sugar, tamarack; undergrowth - briars, vines and hazel.
- T 8 S, R 6 W Land rolling 2nd class barrens to thin soil, some rolling 1st and level 1st class land. Township broken with swamp. Nine lakes in this Township. Timbergrowth - W. Y. oak, tamarack, cedar, ash, hickory, butternut, beech, lynn; undergrowth - sassafrass, grapevine, hazel.

Branch, cont'd.

T 8 S, R 7 W

Land rolling 2nd class to barren with thin soil, some rolling 1st class. Township crossed by stream with swamp and marsh bordering the streams. Timbergrowth - oak, hickory, ash, beech, sugar, cherry, sycamore, elm. Undergrowth - briar, grapevines, spice and hazel.

T 8 S, R 8 W

Land rolling barrens, good soil to rolling and level 2nd class, some upland barrens thinly timbered. Township broken with swamp and marsh. Timbergrowth - W. Y. oak, hickory, beech, sugar, elm, tamarack. Undergrowth - sassafrass.

Calhoun County

- T 1 S, R 4 W Land rolling 1st rate rich to rolling 2nd class, large lake with extensive swamp west central. Some level poor land. Timbergrowth - W.B.Y. Oak, lynn, ash, hickory, tamarack, elm, ironwood, maple.
- T 1 S, R 5 W Land rolling 1st and 2nd class, with small amount of level 1st and 2nd class. Four lakes (small) in township which is broken up with extensive tamarack swamps particularly in south half of township.
- T 1 S, R 6 W Land rolling 1st class rich soil to rolling 2nd class, some level 1st and 2nd class. Five lakes in township also broken with swamp, particularly in east central part. Timbergrowth - B. W.Y. Oak, hickory, elm, tamarack; little or no undergrowth.
- T 1 S, R 7 W Land rolling 1st class and 2nd class with some level to uneven 1st and 2nd class, some hilly and stoney; all broken with swamp. Timbergrowth - B.W.Y. Oak, hickory, ash, elm, beech, lynn; undergrowth - rose, willow, grapevine and hazel.
- T 1 S, R 8 W Land gently rolling, rich soil, some rolling 2nd class and level 2nd class, broken with level poor and wet marsh lands. Crossed by Kalamazoo River, two small lakes. Timbergrowth - B.W.Y. Oak, ash, elm, maple, sycamore, lynn, butternut and tamarack. Little or no undergrowth, thinly timbered areas.
- T 2 S, R 4 W Land rolling 1st class to rolling 2nd class, stoney. Kalamazoo river crosses southwest corner, three small lakes, swamp and marsh along river and streams. Timbergrowth - oak, elm, ash, lynn, beech, tamarack, hickory. Undergrowth - rose, willow, hazel and thorny vine.
- T 2 S, R 5 W Land rolling 1st class to rolling 2nd class, extensive swamp in NE $\frac{1}{4}$ of township. Township crossed by Kalamazoo River, bordered by prairie, low, rich soil; two small lakes. Timbergrowth - B.W.Y. oak, hickory, elm, ash, tamarack; undergrowth - rose, willow, hazel and grapevine.
- T 2 S, R 6 W Land rolling 1st class to rolling 2nd class, some prairie, rich and dry, some poor and wet; broken by swamp, particularly in central to northeast part of township. Crossed by Kalamazoo River. Timbergrowth - W.B.Y. oak, hickory, lynn, maple, elm, ash, aspen, willow and tamarack. Undergrowth - in places rose and willow.

Calhoun, cont'd.

- T 2 S, R 7 W Land, rolling and rich 1st class and rolling 2nd class. One lake in township which is crossed by Kalamazoo River, some swamp in south central part. Timbergrowth - B.W.Y. oak, tamarack, maple, lynn, elm. No undergrowth.
- T 2 S, R 8 W Land rolling 1st class rich soil and rolling 2nd class, also, level rich, prairie lands, broken with uneven low wet marsh and swamp bordering lake; two small lakes and Kalamazoo River crosses northeast corner of township. Timbergrowth - B.W.Y. Oak, ash, elm, maple, lynn, pine, walnut and hickory.
- T 3 S, R 4 W Land rolling 1st class to rolling 2nd class; three lakes in township, streams crossing, some marsh and swamp in southwest corner. Timbergrowth thin with B.W.Y. oak, hickory, tamarack, spruce. Undergrowth - rose, willow, sassfrass.
- T 3 S, R 5 W Land rolling 1st class and rolling 2nd class with some level 1st, 2nd and 3rd class. Lake in northwest corner, township broken with swamp particularly in south half. Timbergrowth oak, hickory, ash, beech, elm, lynn, W. wood, butternut, tamarack. Undergrowth - rose, willow, grass, hazel, sassfrass, briar and grape.
- T 3 S, R 6 W Land rolling 1st rate to rolling 2nd rate, broken by extensive marsh and swamp throughout township, some level 1st and 2nd rate land. Nine lakes in this township. Timbergrowth - B.W.Y. oak, hickory, tamarack, ash, elm, beech, sycamore, butternut. Undergrowth - sassafras, grapevine, hazel and briar.
- T 3 S, R 7 W Land rolling 1st class and rich to rolling and hilly 2nd class, some level 1st and 2nd class, broken by swamp and marsh, particularly central part of township north and south; two lakes. Timbergrowth - oak, ash, hickory, beech, elm, lynn, tamarack and maple. Little or no undergrowth.
- T 3 S, R 8 W Land rolling to hilly 2nd class, some rolling 1st class and rolling barren, with thin poor soil. Township broken with extensive swamps. Two lakes. Timbergrowth - B.W.Y. oak, ash, lynn, beech, hickory, elm, tamarack, maple, hazel, cherry. Undergrowth - dogwood, sassafras, vines and briars.
- T 4 S, R 4 W Land rolling 2nd class to barrens with thin light soil, also, prairie with thin light soil. Wet prairie with swamp and marsh throughout south central part of township. Two lakes, river crosses north half of township. Timber thin throughout township, B.W.Y. oak, hickory, elm, sugar, ash, lynn, tamarack; undergrowth - hazel, rose, willow and aspen.

Calhoun, cont'd.

- T 4 S, R 5 W Land rolling 2nd rate , good land and thin soil, some rich rolling to level 1st class. Two lakes in township which is broken by rivers and stream bordered with extensive swamp and marsh, some rich bottom along river. Timbergrowth - beech, ash, elm, sugar, oak, maple, cherry, tamarack; undergrowth - prickly ash, spice, sassafras, willow, rose, grape and hazel.
- T 4 S, R 6 W Land rolling 2nd class to barren thin soil, some level rich areas, extensive marsh and swamp central and northwest part of township, six lakes. Timbergrowth - walnut, oak, ash, beech, aspen, hickory, tamarack, maple; undergrowth - briar, grapevine, sassafras, shoemack, hazel, rose and willow.
- T 4 S, R 7 W Upland rolling 1st class and rolling 2nd class, some level 2nd class and open prairie, with rich soil. One lake in township which is crossed by rivers with extensive swamps bordering the river. Timbergrowth - sugar, beech, hickory, ash, lynn, W. wood, walnut. Undergrowth - spice, sassafras, grapevine and briar.
- T 4 S, R 8 W Land rolling 2nd class to rolling 1st class. Excellent open prairie, good soil, some level 2nd class land; township broken by extensive wet swamp and thick tamarack growth. Township crossed by river. Timbergrowth - hickory, beech, elm, ash, oak, sugar, sycamore, lynn, W. wood, tamarack, walnut; undergrowth - prickly ash, spice, willow and vines.

Cass County

- T 5 S, R 13 W Land rolling 1st and 2nd rate, broken with tamarack swamp area, some level 1st rate rich land. River crosses township and there are ten lakes. Timbergrowth - W. R. oak, cherry, walnut, hickory, lynn, W. wood, tamarack, beech, maple and elm.
- T 5 S, R 14 W Land rolling 2nd rate and open prairie, level 1st rate, with some rolling 1st rate open land. Township cut with some low wet swamp, heavy growth of tamarack. Open prairie in $N\frac{1}{2}$ of $NE\frac{1}{4}$ of township. River runs diagonally across township from southwest to northeast, bordered by marsh areas. Timbergrowth - poplar, walnut, butternut, beech, oakwood, lynn and tamarack.
- T 5 S, R 15 W Land rolling 2nd class, rough, uneven and hilly, some level 1st class land and areas of low wet swamp along river which cuts across northwest quarter of township, four small lakes in township. Timbergrowth - hickory, poplar, oak, ash, maple, cedar, pine.
- T 5 S, R 16 W Land rolling 2nd rate and level 1st rate, with level 2nd rate and level wet swamp. Dowagiac River crosses southeast part of township, bordered with swamp and marsh areas. Timbergrowth - W. & Y. oak, beech, lynn, ash, sugar, hickory, walnut, elm and maple.
- T 6 S, R 13 W Land rolling 1st rate and rolling 2nd rate with some level 1st rate. Entire township broken with wet tamarack swamp; two large lakes in southwest quarter of township; three other lakes. Timbergrowth - W. R. Y. oak, hickory, cherry, walnut, tamarack; undergrowth - oak, brush, sassafras and brushy.
- T 6 S, R 14 W Land rolling 1st rate, level dry rich prairie in west central part of township. Some rolling 2nd rate. Large lake in southwest corner, four lakes in east half of township. Swamp area in north central part of township; timbergrowth - oak, beech cherry, butternut, lynn, poplar, maple, birch; undergrowth - sassafras and grapevine.
- T 6 S, R 15 W Land first rate gently rolling, some 1st rate level and 1st class barren. Dry prairie central part of township. A stream runs north and south through center of township and two small lakes are located in southeast quarter of township. Timbergrowth - sugar, lynn, ash, oak, hickory and butternut.

Cass, cont'd.

- T 6 S, R 16 W Land rolling 1st rate, barren with level dry and level wet areas; good for meadow, and some rich soil, dry rich prairie land in SW $\frac{1}{4}$ of township; some small wet areas in northeast quarter of township. Township is crossed by Dowagiac River, with its tributaries bordered by marsh areas. Timbergrowth - hickory, white and red oak, sugar, beech, lynn, elm and ash.
- T 7 S, R 13 W Land rolling 1st class and rolling to hilly 2nd class; broken with small open prairie, dry rich land. Ten small lakes in west half of township, with some swamp and marsh areas. Timbergrowth - W. R. Y. oak, hickory, beech, ash, lynn, butternut and sugar.
- T 7 S, R 14 W Land rolling 1st rate to level 1st rate, wet swamp and marsh along stream; thick growth of tamarack, some open prairie with rich rich good soil. River crosses west part of township, with chain of four lakes in east central part of township; rich bottom land along streams. Timbergrowth - sugar, beech, lynn, W. and R. oak, ash, cherry, walnut and hickory.
- T 7 S, R 15 W Land rolling 1st rate , super, excellen, to level good except for area cut by wet prairie. Swamp area in southeast and northwest part of township. Seven lakes in central and southeast part of township. Timbergrowth - oak, hickory, tamarack, walnut and butternut.
- T 7 S, R 16 W Land principally rolling 1st class, 1st rate barrens, some level 1st class with level wet prairie in central to northwest corner making superior meadow, some superb land northwest corner where crossed by Dowagiac River. Some swamp in central part with small lake. Timbergrowth - W. R. and Y. oak, hickory, sugar, elm, beech, ash, lynn, walnut and butternut.
- T 8 S, R 13 W Land rolling 2nd rate to rolling 1st rate, some open prairie 1st rate. St. Joseph River crosses E $\frac{1}{2}$ of township, bordered by low wet swamp and marsh-some call it shaking marsh-worthless. Timbergrowth - sugar W. wood, ash, beech,oak, hickory. Three lakes in south central part of township.
- T 8 S, R 14 W Land rolling, good soil and rolling barren, thin soil. Some open prairie, large lake touches northwest corner of township, with a small stream through north central part of township. Timbergrowth - beech, lynn, sugar, ash, elm, W. wood and butternut.
- T 8 S, R 15 W Land 1st rate barren to gently rolling. 1st rate land with dry prairie, west half township; land"elegant, superior, excellent". Timbergrowth - oak, hickory and sycamore.

Cass, cont'd.

T 8 S, R 16 W Land rolling 1st rate with some level, wet prairie; a lake bed in northeast corner, superb, excellent, dry prairie. Richest land described by survey of 1875 as: "The soil is that of a wet prairie or marsh. The soil is black and from one to three feet deep. The water having recently receded leaves the muck or black soil wet. It will require sometime for it to become dry. The whole lake bed is nearly level - some 10 to 12 acres has water on it in places. The depth of the water is from 2 to 6 inches on the surface in places here and there - did not see any places deeper. . . Timber nearly all the way along the south meander line in Sec. 10 White and Yellow Oak, undergrowth the same with some wild grapes near the edge of the black land or marsh some willow brush growing more or less wild grass & weeds growing nearly all over the lake bed. I saw wild flag only in one place in SE $\frac{1}{4}$ of Sec. 3."

Eaton County

- T 1 N, R 3 W Land rolling 2nd rate to level 2nd rate, with some rolling 1st rate. River crosses $NE\frac{1}{4}$ of township, north of river delightful oak openings. Entire township broken with extensive swamp areas. Timbergrowth oak, elm, tamarack, hickory, lynn, ash and butternut. Undergrowth - willow, grapevine and weeds.
- T 1 N, R 4 W Land rolling 1st and 2nd class. Level and rich with some 2nd class level. Extensive tamarack swamp throughout township with four lakes in $SE\frac{1}{4}$. Timbergrowth - oak, hickory, ash, beech, sugar, lynn and tamarack with sassafras undergrowth.
- T 1 N, R 5 W Land rolling 1st class, handsome rich 1st class soil to rolling 2nd class and level rich. All broken with swamp throughout, streams through township. Timbergrowth - oak, ash, beech, sugar, lynn, elm, hickory, maple, tamarack. Undergrowth - sassafras, briars, ironwood, maple.
- T 1 N, R 6 W Land rolling 2nd class and rolling 1st class all broken with swamp particularly $N\frac{1}{2}$. Battle Creek runs through $S\frac{1}{2}$ of township. Timbergrowth - oak, tamarack, ash, hickory, beech, lynn, cherry, sycamore. Undergrowth - sassafras and briars.

Hillsdale County

- T 5 S, R 1 W Land rolling 2nd rate to barrens, some level 1st and 2nd rate, broken with poor 3rd rate and swamp, particularly along the stream; timbergrowth - sugar, lynn, oak, ash, hickory, maple, birch, ironwood, elm; undergrowth - thick hazel, briars.
- T 5 S, R 2 W Land rolling 2nd rate to hilly barrens, strong thin timbers, with open prairie and marsh with some swamp. Timbergrowth - oak, beech, ash, birch, aspen, hickory, elm, tamarack, ironwood; undergrowth - lynn, hazel, briars, poplar, sassafras, willow. Stream across the $E\frac{1}{2}$ of township.
- T 5 S, R 3 W Land hilly, barren, thin soil with rolling good oak land, some good prairie. Kalamazoo River crosses this township with some swamp and marsh bordering the river and streams. Timbergrowth - W. Y. R. Oak, hickory, cedar. Undergrowth - sassafras, willow.
- T 5 S, R 4 W Land rolling 2nd class to barrens, with thin stoney soil. Township broken by swamp, particularly along river. Timbergrowth - oak, hickory, beech, ash, poplar, lynn, sugar, butternut and walnut. Undergrowth - very thin sassafras, spice, hazel, rose and willow with grapevine.
- T 6 S, R 1 W Land rolling 1st rate to level 1st rate, stream throughout township with some low, wet prairie. Timbergrowth - ash, lynn, sugar, oak, beech, maple, willow, sycamore, W. Wood, sassafras, walnut and hickory. Undergrowth - briars and grapevine.
- T 6 S, R 2 W Land rolling good 2nd class land with some rolling 1st and level 1st class land thickly timbered except on hilly barrens, swamp and prairies. Stream runs through the township bordered by swamp. Timbergrowth - beech, ash, elm, maple, hickory, aspen, tamarack, sycamore. Undergrowth - sassafras, willow, briars and grapevine.
- T 6 S, R 3 W Land, hill, barren, thin soil with some rolling 1st and 2nd class wet prairie and swamp. St. Joseph River crosses the township. Timbergrowth - oak, sugar, beech, ash, tamarack, hickory; undergrowth - hazel, scrub oak, sassafras, willow, briars and grape.
- T 6 S, R 4 W Land rolling 1st rate to rolling 2nd rate with some level 1st rate and uneven 2nd rate. Streams through township bordered by marsh and swamp, four lakes. Timbergrowth - oak, sugar, W. Wood, walnut, ash, elm, tamarack, beech, lynn; undergrowth - spice, grapevine and sassafras.

Hillsdale, cont'd.

- T 7 S, R 1 W Land rolling 1st rate with some level 2nd class and hilly land. This township is crossed by St. Joseph River with swamp in the southcentral part. Timbergrowth - beech, ash, sugar, lynn, elm, tamarack, hickory and walnut. Undergrowth - thick willow, briar.
- T 7 S, R 2 W Land rolling 1st rate to rolling 2nd rate and hilly barrens, some open prairie. Township is broken with swamp, thick growth of tamarack. Timbergrowth - beech, oak, ash, lynn, sugar, tamarack, maple, walnut; undergrowth - spice, briars and vines.
- T 7 S, R 3 W Land rolling 1st rate to rolling 2nd rate; entire township broken by tamarack swamps. Streams run through the township with four lakes. Timbergrowth - oak, beech, ash, tamarack, walnut, W. wood, sugar, hickory, maple, lynn; undergrowth - spice, briar, sassafras and grape.
- T 7 S, R 4 W Land level 1st class to very rich, and rolling 1st class very rich to rolling 2nd rate. Long lake in $W\frac{1}{2}$ of township bordered by uneven land and swamp. Timbergrowth - sugar, beech, ash, lynn, hickory, walnut, elm, tamarack, sycamore, willow, butternut; undergrowth - sassafras, spice and prickly ash.
- T 8 S, R 1 W Land level 2nd rate to rolling 1st rate, broken with extensive swamp. Stream through west half; timbergrowth - oak, beech, maple, ash, cottonwood, tamarack and sugar. Undergrowth - spice.
- T 8 S, R 2 W Land rolling 1st class and rolling 1st class, some low wet prairie with good soil; all broken with marsh and swamp along streams. Timbergrowth - ash, spice, elm, beech, lynn, tamarack, hickory, oak, aspen, maple, walnut. Undergrowth - spice, briars.
- T 8 S, R 3 W Land rolling 1st class to rolling 2nd class. Streams run through entire township bordered by extensive swamp with thick growth of tamarack. Other timbergrowth - hickory, beech, oak, aspen, tamarack, W. wood, sugar, lynn and elm.
- T 8 S, R 4 W Land rolling 1st class with some uneven 2nd class land. Township broken with swamp and rolling barrens with thin soil. Timbergrowth - sugar, lynn, W. wood, beech, walnut, hickory. Undergrowth - spice, briars and vines.

Hillsdale, cont'd.

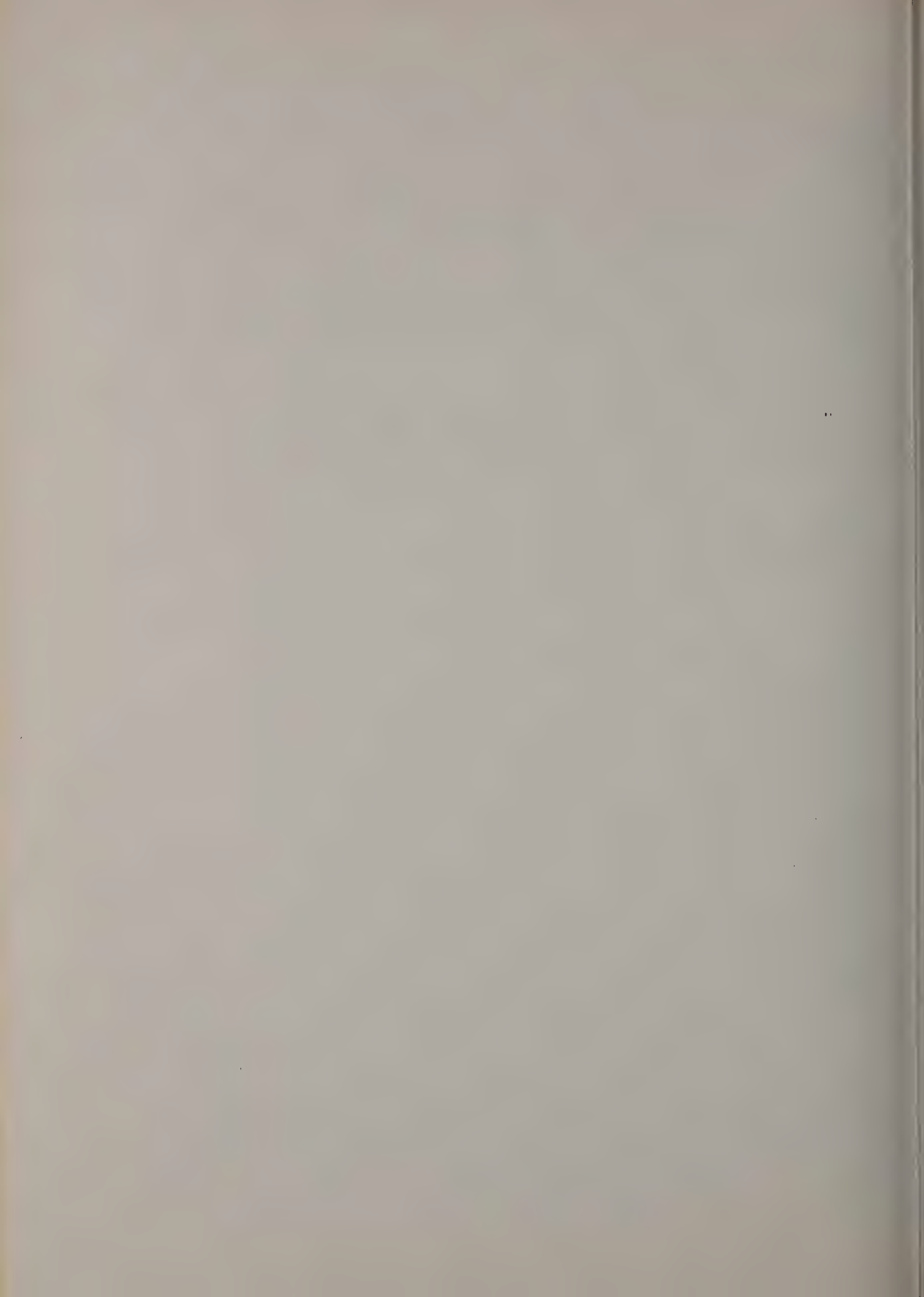
- T 9 S, R 1 W Fractional township $1\frac{1}{4}$ mile north and south. Land rolling, good; broken with swamp. Timbergrowth - sugar, ash, oak, elm, beech, maple, tamarack. Undergrowth - thickety.
- T 9 S, R 2 W Fractional township $1\frac{1}{2}$ mile north and south. Land low 1st rate in some places, wet marsh or swamp. This fractional township is crossed by a river. Timbergrowth - ash, sycamore, elm, beech, oak, cherry and maple.
- T 9 S, R 3 W Fractional township $1\frac{3}{4}$ mile north and south. Land rolling 2nd class with some swamp and prairie. Timbergrowth - beech, aspen, sugar, with undergrowth the same. One lake.
- T 9 S, R 4 W Fractional township 2 miles north and south. Land rolling 1st class and rich, broken with some swamp. Timbergrowth - sugar, beech, lynn, ash, walnut, W. wood. Undergrowth - spice, thick.

Ingham County

- T 1 N, R 1 E Land rolling 1st rate and level 2nd rate, spots of 1st class land; all broken with swamp and prairie. Timbergrowth - oak, elm, ash, aspen, hickory, walnut, tamarack; undergrowth - sassafras, hazel, prickly ash and grass.
- T 1 N, R 2 E Land rolling 2nd class and level 2nd class, broken with extensive swamps and marsh throughout. Lake in NE $\frac{1}{4}$. Timbergrowth - oak, elm, ash, lynn, tamarack. Undergrowth - sassafras, hazel and grass.
- T 1 N, R 1 W Land rolling 2nd rate to rolling 1st rate rich, some level 1st and 2nd rate land, all broken extensively with wet swamp, thick tamarack growth of timber. Stream throughout township. Timbergrowth - oak, walnut, hazel, ash, aspen, hickory, lynn sugar and beech. Undergrowth - same with prickly ash, sassafras, grapevine and hazel.
- T 1 N, R 2 W Land rolling 2nd class with some gently rolling 1st class and level 2nd class, also, some handsome plain covered with willow and some beautiful plain, rich. Easterly part of township broken with swamp and prairie. River runs through W $\frac{1}{2}$, high banks and rich bottom lands along river. Timbergrowth - oak, sugar, beech, elm, ash, lynn, hickory, tamarack, maple. Undergrowth - sassafras, hazel, thorn and alder.

Ionia County

- T 5 N, R 8 W Land rolling 2nd rate and rolling 1st rate, all broken with tamarack swamps, streams cross township. Timbergrowth - beech, sugar, lynn, oak, hickory, ash, tamarack. Undergrowth - some spice and grapevine.
- T 6 N, R 8 W Land rolling 2nd rate with some rolling 1st rate, all broken with tamarack swamp. River crosses $N\frac{1}{2}$ of township, lake in SE corner. Timbergrowth - beech, sugar, elm, ash, ironwood, tamarack, butternut, maple. Undergrowth - same.
- T 7 N, R 8 W Land rolling 1st class, rich, also rolling 2nd class. All broken with swamp and prairie. River crosses northwest corner. Timbergrowth - oak, ash, maple, beech, cherry, hickory; undergrowth - hazel, briars, sassafras, alder, willow and aspen.

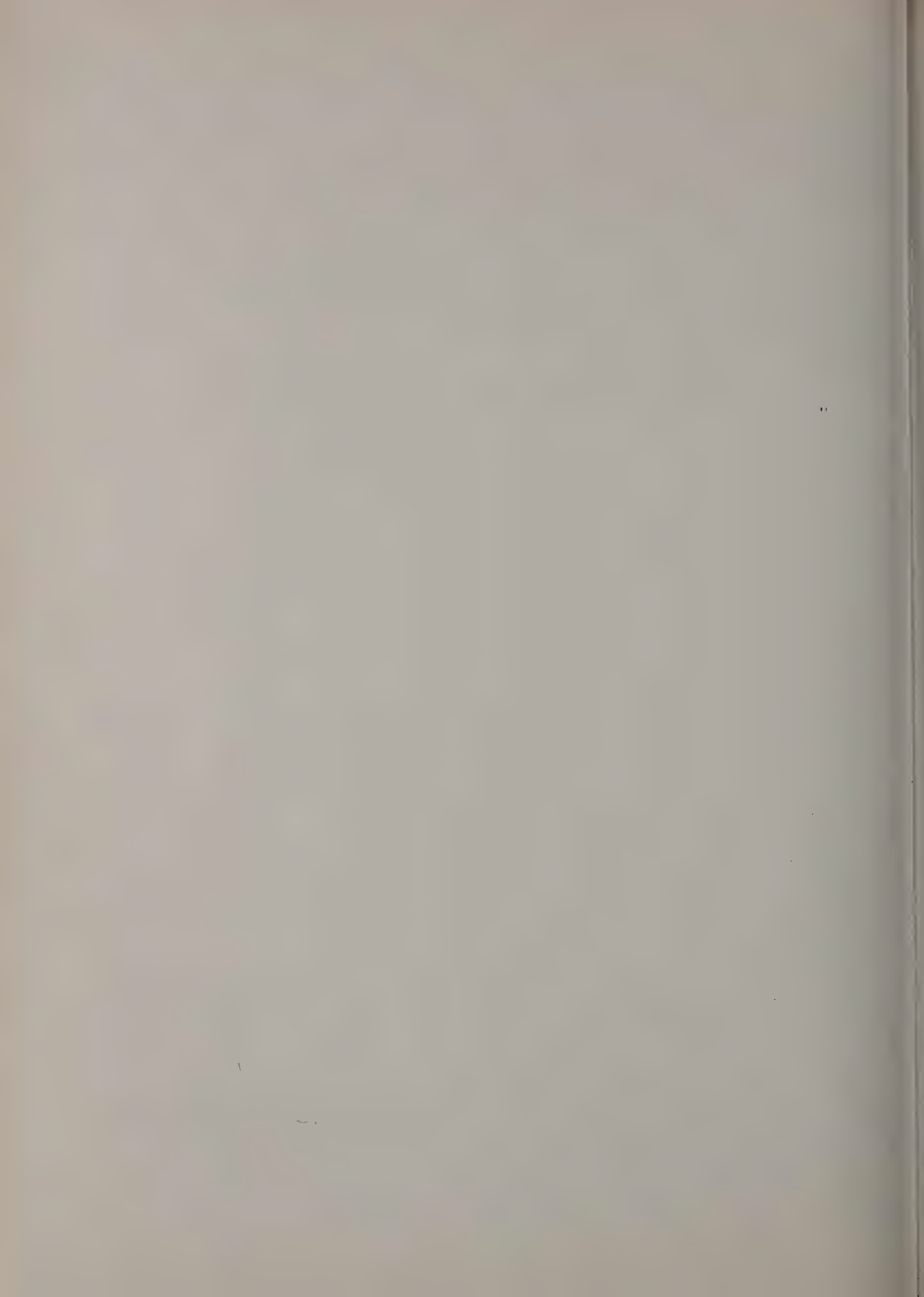


Jackson County

- T 1 S, R 1 W Land rolling 2nd rate with some rolling rich upland, 1st rate bottom land along the Grand River which crosses the township, rich and level. The township is broken by marsh and swamp. Timbergrowth of ash, oak, hazel, aspen, sassafras, tamarack, sycamore, walnut, lynn, elm, hickory; undergrowth thickety, sassafras, hazel, plumb and willow.
- T 1 S, R 2 W Land rolling 2nd class, rolling 1st class, good land, well timbered, some level 1st class and broken with uneven 3rd class land. NE $\frac{1}{4}$ of township is crossed by Grand River. Township broken with swamp and marsh. Timbergrowth - oak, lynn, tamarack, sassafras, aspen, ash, elm, hickory. Undergrowth - sassafras, thickety.
- T 1 S, R 3 W Land rolling 1st rate and 2nd rate oak land. Some level 1st and 2nd class land. Marsh and swamp bordering streams (boggy marsh). Timbergrowth - oak, hickory, tamarack, aspen, ash, elm, lynn. Little or no undergrowth.
- T 1 S, R 1 E Land rolling 2nd class and level 2nd class, sandy, some level rich with marsh and prairie. Four lakes in W $\frac{1}{2}$ of township bordered by swamp, some extensive swamp in township. Timbergrowth - oak, ash, hickory, with some areas no timber. Undergrowth - grass and weeds.
- T 1 S, R 2 E Land rolling and hilly 2nd to 3rd class. Land sandy soil; entire township broken with prairie and marsh. Timbergrowth - thin oak and hickory. Undergrowth - grass and weeds. Lake located in SW corner of township.
- T 2 S, R 1 W Land rolling 2nd rate with some rolling rich land thinly timbered. Township broken with uneven 3rd rate prairie poor and marsh and swamp. Timbergrowth - B. W. Y. oak, tamarack, ash, lynn, beech, elm, butternut, hickory, tamarack. Undergrowth -oak, willow, grapevine and plumb.
- T 2 S, R 2 W Land rolling 1st and rolling 2nd rate with some level 1st and 2nd rate. River crosses the township with some prairie and swamp in the NE $\frac{1}{4}$. Timbergrowth - oak, aspen, tamarack, ash, elm, hickory, lynn, with some undergrowth prickly ash. Part of township no undergrowth but good timber.
- T 2 S, R 3 W Land rolling 1st class, some rolling 2nd and level 1st class, also, uneven 3rd and 1st class with open prairie. Timbergrowth - B. oak, hickory, aspen. Little or no undergrowth.

Jackson, cont'd.

- T 2 S, R 1 E Land rolling 2nd class to poor uneven 3rd class; entire broken with swamp and marsh. Three lakes in $S\frac{1}{2}$ of township and streams through $NW\frac{1}{4}$. Timbergrowth hickory, W. R. Y. oak and tamarack. Undergrowth - oak and willow.
- T 2 S, R 2 E Land rolling to hilly 2nd class and poor uneven barren 3rd class. Township broken with swamp with river through north half and lake in $SW\frac{1}{4}$. Timbergrowth - oak, hickory and tamarack.
- T 3 S, R 1 W Land rolling 2nd rate, broken with extensive marsh, swamp and 3rd class land throughout the township, some poor prairie land. Three small lakes. Timbergrowth - W. R. Y. oak, walnut, hickory, tamarack, cedar; undergrowth - oak, hickory, willow, prickly ash, spice and plumb.
- T 3 S, R 2 W Land rolling to gently rolling 1st class some rolling 2nd class and level 1st class broken with open wet prairie level land heavily timbered rolling thin timber. Timbergrowth - oak, hickory, ash, elm, aspen. River through township bordered by marsh. "Note about 8 chs. S.E. from the corner of 34 and 35 on the South boundary of Township 3 S.R. 3 West is a very large and beautiful spring or rather several springs uniting near the fountain head and forming a Stream from 15 to 30 links wide running N. W. These springs issue from a Bank and furnish nearly water enough to turn an overshot mill. The fall of the water in 10 rods is estimated at from 13 to 15 feet & its roar may be distinctly heard for near half a mile. The water of one of these springs is highly chalybeate, so much so that where it issues from the earth it has formed a ledge of the Red Oxide of Iron about 3 feet in height. Some of them are impregnated with lime & great quantities of calcarious Tufa are found in & about them. The Tufa in one of the springs is tinged of a yellow colour & in another some specimens were picked up of a beautiful green. These colours are probably occasioned by the green carbonate of copper a small quantity of which might be mixed with the water or held in solution.
- T 3 S, R 3 W Land rolling 1st class with some rolling 2nd class and level 1st class, also uneven land and wet prairie. Timber growth - w. b. oak, hickory, ash, elm, lynn, with little or no undergrowth.
- T 3 S, R 1 E Land uneven, poor, extremely barren, stoney, some rolling and level 2nd class. Entire township is broken with swamps. Four lakes on east side of township. Timbergrowth - oak, ash, tamarack, lynn; undergrowth - thick, small oak and brush prickly ash.



Jackson, cont'd.

- T 3 S, R 2 E Land uneven, poor 3rd class, barren, broken with prairie and swamp, some rolling 2nd class land. River runs east and west through township and a lake was found in west central part. Timbergrowth - elm, lynn, ash, oak, hickory and tamarack. Undergrowth - scrub oak.
- T 4 S, R 1 W Land rolling 2nd rate, broken with level 2nd rate, sandy 3rd rate and wet swamp. Five small lakes in the township. Timbergrowth - r. y. w. oak, hickory, walnut, tamarack. Undergrowth - oak, willow.
- T 4 S, R 2 W Land rolling 2nd class, broken with hilly barrens and open, wet prairie and swamp. Lake in the SE corner. Timbergrowth - b. y. r. w. oak and hickory. Thick growth of willows.
- T 4 S, R 3 W Land rolling barrens with thin soil, some rolling 1st and 2nd class land and hilly, thin soil. River runs through $W\frac{1}{2}$ of township, with some extensive swamps bordering the streams. Timbergrowth - w. b. y. oak, hickory, tamarack and ash. Little or no undergrowth.
- T 4 S, R 1 E Land, poor, uneven 3rd class, some hilly, some very stoney, barren, sandy soil. A few open prairie with dry good soil, broken by wet prairie. Timbergrowth - b. w. y. oak, tamarack, lynn, ash, cedar, walnut and poplar. Little or no undergrowth.
- T 4 S, R 2 E Land poor, uneven, barren 3rd class, broken with wet prairie, marsh and swamp. Timbergrowth - thin oak, elm, hickory, tamarack; undergrowth - hazel, oak, willow. River crosses $N\frac{1}{2}$ of township; two large lakes in $S\frac{1}{2}$.

Kalamazoo County

- T 1 S, R 9 W Land rolling 2nd rate, some level 2nd rate. Gull Lake touches NW corner of township. Kalamazoo River crosses the SE corner of township, also six small lakes. Township is broken by swamps. Timbergrowth - b. w. y. oak, ash, elm, maple, beech, sycamore, butternut, sugar, tamarack; undergrowth - sassafras, briars.
- T 1 S, R 10 W Land rolling 1st and 2nd rate, broken with some marsh and swamp, large deep lake in NE corner, lake and swamp in SE corner. Timbergrowth - b. w. y. oak, aspen, hickory, beech, lynn.
- T 1 S, R 11 W Land rolling 2nd class with some rolling 1st class and level 2nd, some wet swampy areas. Kalamazoo River crosses north and south through the center of this township; includes fourteen islands. Timbergrowth - oak, sugar, beech, ash, lynn, walnut, butternut, ironwood and sycamore.
- T 1 S, R 12 W Land rolling 2nd rate to rolling, rich, some level, rich land; extensive level, wet and swamp throughout $W\frac{1}{2}$ of township and along streams. Timbergrowth - sugar, lynn, poplar, walnut, beech, sycamore, elm, ash, cherry, maple, pine, tamarack; undergrowth - vines, briars and hazel.
- T 2 S, R 9 W Land rolling 2nd class with some rolling 1st class. Partly open, rich, dry prairie. Kalamazoo River crosses NW corner of township. Four lakes in this township. Timbergrowth - b. w. y. oak, hickory, cedar, sugar, beech, maple and walnut.
- T 2 S, R 10 W Land rolling to hilly 2nd rate and level prairie 2nd rate, rolling, barren, good soil, low along river, rich soil. This township is crossed by Kalamazoo River east and west through center of township. One lake north central. Township is broken by swamp. Timbergrowth - sugar, beech, ash, lynn, birch, w. wood, tamarack; undergrowth - spice, thorns, prickly alder and willow.
- T 2 S, R 11 W Land rolling to hilly 2nd rate with some rolling 1st rate, rich prairie 1st class land, elevated 100 feet above surrounding territory. Kalamazoo River crosses the $NE\frac{1}{4}$. Large swamp in north central part of township. Township broken with tamarack swamp and open wet, prairie. Timbergrowth - sugar, beech, ash, lynn, hickory, oak, elm, sycamore.

Kalamazoo, cont'd.

- T 2 S, R 12 W Land rolling to hilly 2nd class and rolling rich land, some open dry, rich prairie on areas in Sec. 33, 100 feet above surrounding country, also sandy 2nd rate land. Five small lakes in township with bordering marsh and swamp. Timbergrowth - w. r. y. oak, hickory, poplar, walnut, pine and tamarack. Undergrowth - grubs, grass, weeds.
- T 3 S, R 9 W Land rolling 2nd class to rolling 1st class, some open rich, dry prairie. Township is broken by low, wet areas, fair to good soil and heavy swamp. Thick timbergrowth of tamarack, other timer on upland, beech, sugar, oak, elm, lynn; undergrowth - spice, wild rose and vines.
- T 3 S, R 10 W Land rolling 2nd rate to level 2nd rate, some rolling 1st class and rolling barren with thin soil. This township broken by extensive swamp areas in central part of township north and south, "dismal swamps". Stream through township and five lakes. Timbergrowth - sugar, beech, lynn, w. wood, hickory, elm, maple.
- T 3 S, R 11 W Land rolling 2nd rate to barren with thin soil, some level 2nd rate, to open prairie with thin soil, small amount rolling 1st class. SW part and east central extensive tamarack swamp with large lake SE $\frac{1}{4}$ of township and stream through central part. Lovely beach at lake. Timbergrowth - hickory, oak, aspen, beech, sugar, lynn, elm, ironwood and tamarack.
- T 3 S, R 12 W Land rolling 2nd rate to rolling 1st rate, some rolling and level 3rd rate, broken by marsh and swamp, also some level excellent, dry, open prairie. Six lakes in township with timbergrowth w. r. y. oak, hickory, poplar, beech, elm, lynn; undergrowth - willow, shrubbery, brushy.
- T 4 S, R 9 W Land rolling 1st class and rolling 2nd class with stream throughout the township bordered by marshes. Township is broken with swamps, thick growth of tamarack. Other timbergrowth is beech, ash, maple, elm, w. wood, lynn, hickory, ironwood, walnut; undergrowth - willow, prickly ash and spice.
- T 4 S, R 10 W Land rolling 2nd rate to rolling 1st rate with level and rolling barrens of thin soil, broken by swamp throughout township in many places a complete quagmire; streams throughout township; two lakes. Timbergrowth - beech, hickory, sugar, lynn, ash, walnut, tamarack and maple. Undergrowth - hazel, grape, briar, vines.

Kalamazoo, cont'd.

- T 4 S, R 11 W Land level rich prairie with mounds to rolling 2nd rate land and barrens with thin soil, some level 2nd class to uneven 3rd class, extensive tamarack swamp $SE\frac{1}{4}$ of township, also intermittently throughout township, stream connecting lakes. Timbergrowth - oak, beech, tamarack, hickory, walnut, ash, lynn; undergrowth - hazel and scrub oak.
- T 4 S, R 12 W Land level 1st rate to open prairie, level, rich 1st rate, some rolling 2nd rate with level, wet areas and broken with tamarack swamps. Streams through $SW\frac{1}{4}$ and center of township, with bordering marsh. Timbergrowth - sugar, beech, poplar, walnut, hickory, tamarack, maple, elm, ash; undergrowth - briars, grapevine, hazel and boxwood.

Kent County

- T 5 N, R 9 W Land rolling 2nd rate, some rolling 1st rate, all broken with swamp and marsh, particularly north half of township. River crosses south half of township. Timbergrowth - oak, beech, sugar, ash, elm, butternut, cherry, tamarack.
- T 5 N, R 10 W Land rolling 2nd class, some rolling 1st class and level 2nd class, all broken with swamp, wet prairie and 3rd class land. Apple River runs north and south through center of township. Four lakes. Timbergrowth - beech, sugar, lynn, ash, maple, tamarack, elm, aspen; undergrowth same, hazel, briar, sassafras, spice, willow.
- T 5 N, R 11 W Land rolling 2nd class, some rolling to gently rolling 1st class, all broken with swamp and prairie. Streams throughout the township. Timbergrowth - oak, beech, sugar, ash, elm, tamarack, lynn, hickory. Undergrowth same and spice.
- T 5 N, R 12 W Land level 2nd class and rolling 1st and 2nd class, all broken with poor, rough 3rd class and extensive swamps. Timbergrowth - beech, sugar, ash, sycamore, pine, cedar, hemlock. Undergrowth same with alder and willow.
- T 6 N, R 9 W Land rolling 2nd class, some rolling 1st class, all broken with swamp and marsh. Grand River crosses north half of township. Lake in $SE\frac{1}{4}$. Timbergrowth - oak, ash, beech, elm, tamarack, hickory; undergrowth same.
- T 6 N, R 10 W Land rolling 2nd rate with some 1st rate, broken by swamp. River runs north and south through Township and Grand River crosses $NE\frac{1}{4}$; swamp along river, low and wet. Timbergrowth - oak, ash, beech, sugar, lynn, elm, hickory, tamarack; aspen. Undergrowth same.
- T 6 N, R 11 W Land rolling 2nd rate, some rolling 1st class. Streams throughout the township. Timbergrowth - beech, sugar, ash, lynn, pine, maple, hickory, elm. Little or no undergrowth.
- T 6 N, R 12 W Land rolling 2nd class and level 2nd class with some rolling to gently rolling 1st class, all broken with poor 3rd class and swamp. Grand River flows through $NW\frac{1}{4}$, low river bottom lands. Timbergrowth - beech, sugar, ash, elm, pine, lynn. Undergrowth same with alder and willow.

Kent, cont'd.

- T 7 N, R 9 W Land rolling 2nd class, some rolling 1st class, with some level 1st and 2nd class, all broken with swamp, some 1st rate bottom land. Timbergrowth oak, hickory, beech, elm, tamarack, ash, walnut, sugar, poplar; undergrowth sassafras, oak, sugar, ironwood, hazel, grapevine, alder, cranberry. "This township is well supplied with springs. Timber lofty, fine for building or making rails. Flat River is extremely rapid and full of islands, runs at rate of six miles per hour when low."
- T 7 N, R 10 W Land rolling 2nd rate, some rolling 1st rate, all broken with swamp. Township crossed by Grand River. Timbergrowth oak, tamarack, alder, sugar, beech, ash, lynn, elm, hickory, hackberry. Undergrowth - grapevine, brakes, oak grubs and sassafras.
- T 7 N, R 11 W Land rolling 2nd class, some level 1st and 2nd class, all broken with swamp. Grand River crosses northwest corner of township; two lakes. Timbergrowth oak, beech, ash, hickory, butternut, tamarack, maple, lynn; undergrowth same.
- T 7 N, R 12 W Land rolling 2nd class to rolling 1st class, some level 1st class, all broken with poor 3rd class or marsh and swamp. Grand River crosses this township, rapids one mile long; 15-foot fall in Section 24, river bottom all along river. Timbergrowth - elm, ash, oak, beech, sugar, lynn, hickory, maple, butternut; undergrowth same.
- T 8 N, R 10 W Land rolling 1st class and rolling 2nd class, broken with swamp, low, rich bottom lands along Grand River in SW $\frac{1}{4}$; three lakes. Timbergrowth - sugar, beech, ash, lynn, hickory, maple, elm, tamarack.
- T 8 N, R 11 W Land rolling 2nd class to rolling 1st class with some level 1st class, 2nd class and poor 3rd class in some cases. Sand ridges, some W. pine plains and bottom lands along river, rich, well timbered. Township is crossed by river, five lakes. Timbergrowth - oak, ash, elm, butternut, tamarack, pine, beech, maple, hickory; undergrowth same with grass, vines, briars, hazel and sassafras.
- T 8 N, R 12 W Land rolling 2nd rate to rolling and gently rolling 1st class, rich soil, all broken with poor 3rd class land. Streams through township. Timbergrowth - oak, pine, ash, lynn, elm, beech, walnut, maple; undergrowth - same with hazel and sassafras.

Lapeer County

- T 6 N, R 9 E Land rolling, hilly, level, poor, barren and rolling
1st class, 2nd class, level 1st class, all broken with
tamarack swamp. Timbergrowth - oak, beech, ash, elm,
aspen, hickory, maple, tamarack. Undergrowth - sassafras,
oak, hazel and aspen.
- T 6 N, R 10 E Land hilly, poor, barren, scrub, level poor. Very
bushy. Badly timbered, barren nobbs, broken with
swamp. Timbergrowth - oak, cedar, tamarack, lynn,
ash, beech, cherry, sugar, iron. Undergrowth -
same and hazel.
- T 6 N, R 11 E Land poor, hilly, very hilly, barren, thin soil,
badly timbered, fallen timber burnt over, some
rolling good 2nd class land. All broken with swamp.
Timbergrowth same.
- T 6 N, R 12 E Land good, tolerable, some good, level and fine rich,
all broken with poor, hilly, burnt land, fallen timber,
low, wet prairie and swamp. Timbergrowth - oak, ash,
aspen, tamarack, elm. Undergrowth - alder, willow,
ironwood and briars.

Lenawee County

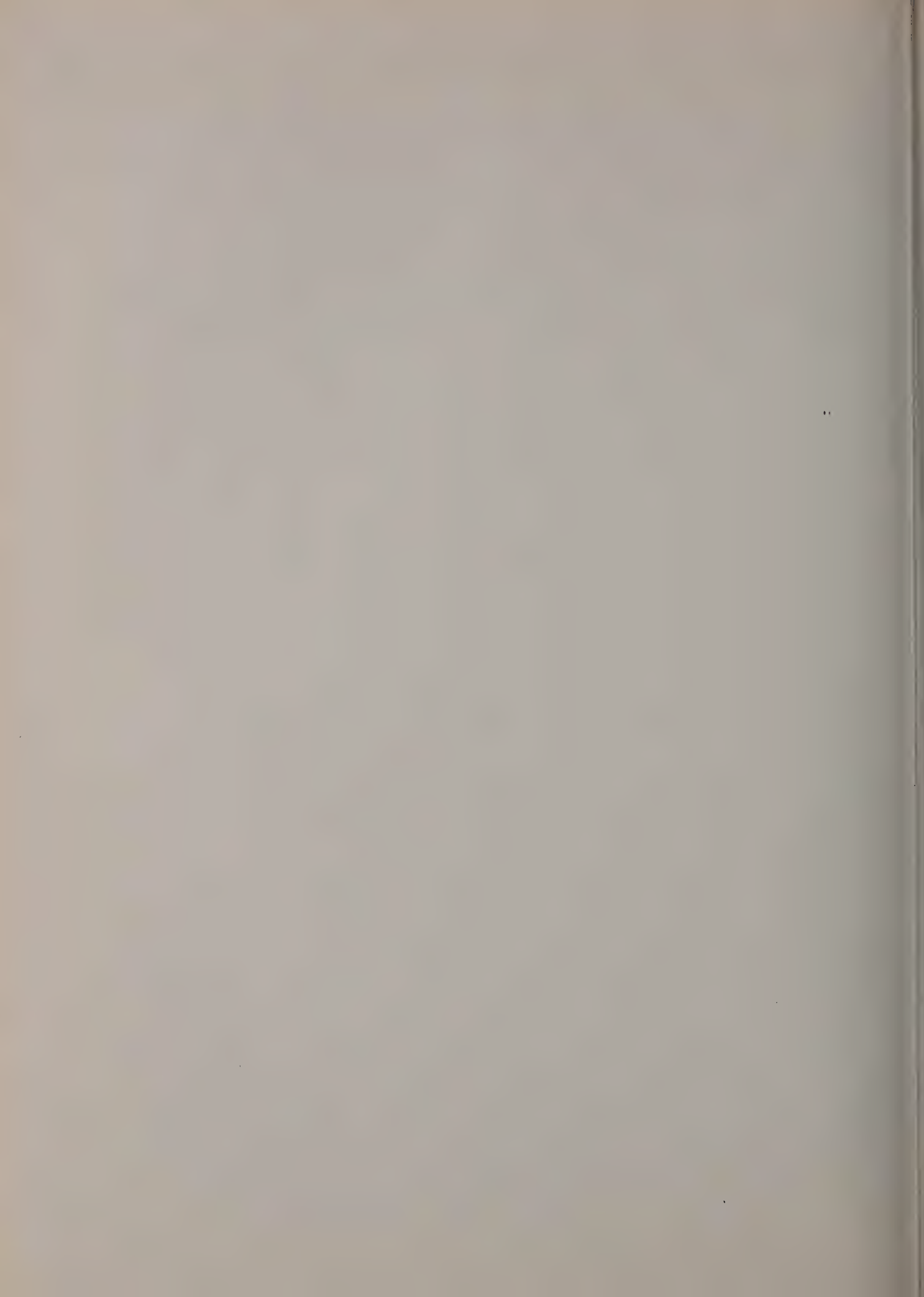
- T 5 S, R 1 E Land poor 3rd rate, stoney, hilly, barren, interspersed with prairie, some dry, other wet, some upland rolling 2nd class and some level, good or 2nd class. Entire township broken with swamp, not much timber, what is is poor, scrubby oak, hickory, tamarack, poplar, ash.
- T 5 S, R 2 E Land rolling 2nd class and rolling 1st class with some level 1st class, entire township broken with poor, hilly, uneven land, prairie and swamp. Lake in $N\frac{1}{2}$ of township and river through $E\frac{1}{2}$. Timbergrowth - beech, ash, oak, sugar, hickory, lynn and tamarack.
- T 5 S, R 3 E Land, level, 1st class, with some prairie, low and rich, rolling 1st class and level 2nd class, all broken with uneven land, poor, also swamp. River runs through $E\frac{1}{2}$ of township with two lakes in $NW\frac{1}{4}$. Timbergrowth - hickory, ash, oak, tamarack, elm, maple, beech, lynn, basswood. Undergrowth is thick with scrub oak.
- T 5 S, R 4 E Land rolling, good 2nd class land with some very rich, also high, level 2nd class and a little 1st class, with high poor barrens. All broken with swamp, streams throughout. Timbergrowth - w. b. oak, hickory, ash, lynn, maple, walnut.
- T 5 S, R 5 E Land good farming land, and level, rich land, some high. All broken with swamp. Streams throughout township; timbergrowth - maple, hickory, ash, oak, elm, sugar, lynn, walnut. Undergrowth - spice and dogwood.
- T 6 S, R 1 E Land poor 3rd class, hilly, uneven, broken with swamp, some prairie. Marsh, wet and low. Small part level, good land. Timber poor - sugar, beech, ash, tamarack, oak, hickory. Undergrowth is thick grapevine, scrub oak. River crosses $W\frac{1}{2}$ of township and a lake is located in north central part.
- T 6 S, R 2 E Land rolling 2nd class land with small amount of rolling 1st class and level 1st class, broken with prairie and marsh. River through the $S\frac{1}{2}$. Timbergrowth - beech, walnut, oak, ash, hickory, tamarack, pine, lynn; undergrowth - grapevine, prickly ash, sassafras and spice.
- T 6 S, R 3 E Land level 1st and 2nd class, some low and wet, also rolling 2nd class. Entire township broken with swamp and wet marsh. Timbergrowth - oak, ash, maple, beech, elm, hickory, tamarack, basswood; undergrowth - thick scrub oak and maple, willow.

Lenawee, cont'd.

- T 6 S, R 4 E Land rolling, high, rich to good farming 2nd class land with some low, rich prairie broken with swamp. River runs through central part of the township. Timbergrowth - sugar, w. b. oak, beech, elm, lynn, sycamore and hickory.
- T 6 S, R 5 E Land, good farming and some low and high, rich land. Entire township broken with extensive, wet prairie and swamp. River runs through N $\frac{1}{2}$ of township. Timbergrowth - hickory, elm, oak, ash, lynn, sugar and beech.
- T 7 S, R 1 E Land rolling 1st class and level 1st class to rolling and level 2nd class, some uneven, hilly land with steep banks. Township broken by swamp. River crosses S $\frac{1}{2}$ of township. Timbergrowth - hickory, elm, maple, ash, walnut, beech, oak. Undergrowth - sassafras, thorn, hazel, briar, very thick.
- T 7 S, R 2 E Land uneven 2nd class land and uneven 3rd class, some rolling 1st and 2nd class land, stream throughout township. Entire area broken with swamp and prairie. Timbergrowth - elm, hickory, beech, sugar, tamarack, ash, maple, birch, walnut. Undergrowth - spice, beech, prickly ash, grapevine, sassafras.
- T 7 S, R 3 E Land rolling to uneven 2nd class with some rolling 1st class and level 2nd class. River runs NE'ly across township bordered by marsh and swamp. Timbergrowth - b. w. oak, walnut, hickory, elm, ash, tamarack, maple, aspen. Undergrowth - grapevine, briar, sassafras, spice, willow and hazel.
- T 7 S, R 4 E Land good farming with some high, level, wet, good land also low, rich areas with prairie and swamp. River Raison runs south entirely through the township, high banks. Timbergrowth - sugar, beech, ash, w. oak, elm, lynn, walnut.
- T 7 S, R 5 E Land good farming, low, rich, high, rich, broken with low, wet and extensive swamps. River runs northeasterly through township. Timbergrowth - ash, elm, maple, lynn, poplar, sycamore.
- T 8 S, R 1 E Land rolling 1st class and level 1st class and 2nd class, small amount uneven or swamp. Timbergrowth - elm, oak, ash, hickory, beech, lynn, sugar, walnut, butternut, undergrowth - spice, prickly, thorn briars, thick to uncommonly thick. Streams throughout township.

Lenawee, cont'd.

- T 8 S, R 2 E Land level 2nd rate land to level 1st class with some rolling 1st and 2nd class, broken with uneven 3rd class land and swamp. Streams throughout the township. Timbergrowth - elm, lynn, ash, maple, beech, hickory, sugar, aspen, tamarack and butternut.
- T 8 S, R 3 E Land rolling 1st and 2nd class, level 1st and 2nd class. Streams throughout township with swamp particularly through south half. Timbergrowth - sugar, lynn, beech, ash, oak, hickory and walnut.
- T 8 S, R 4 E Land low, level, rich; river touches NE corner. Timbergrowth - lynn, ash, cotton, hickory, maple and elm.
- T 8 S, R 5 E Land low, rich, level 1st class, broken with swamp. Timbergrowth - beech, sugar, ash, lynn, sycamore and maple.
- T 9 S, R 1 E Fractional township on State line, one mile wide. Land level 1st and 2nd class, some rolling 1st class. Timbergrowth - oak, ash, hickory, beech, lynn, sugar, walnut; little or no undergrowth.
- T 9 S, R 2 E Land level 2nd class and rolling 1st class. Timbergrowth - lynn, ash, maple, hickory, beech, elm; some prairie and marsh.
- T 9 S, R 3 E Fractional township at State line, one mile wide. Land rolling and level 1st class. Timbergrowth - sugar, lynn, beech, ash, hickory, oak; some marsh and prairie.
- T 9 S, R 4 E Fractional township at State line, one mile wide. Land low, rich, very fine. Timbergrowth - ash, lynn, sugar, beech and elm.
- T 9 S, R 5 E Fractional township one mile wide, State line. Land, good, rich farming land. Some prairie. Timbergrowth - sugar, ash, lynn, sycamore.



Livingston County

- T 1 N, R 3 E Land rolling, oak land, 2nd rate, some rolling 1st rate and level 2nd rate broken with hilly land barren and extensive tamarack swamps. Timbergrowth - oak, tamarack, hickory, spruce, lynn; undergrowth same.
- T 1 N, R 4 E Land rolling oak 2nd class to hilly, poor oak, 3rd class, all broken with tamarack swamp. Timbergrowth - ash, elm, tamarack; undergrowth - willow weeds.
- T 1 N, R 5 E Land rolling, good oak land 2nd class to hilly, poor, barren oak all broken with swamp. Timbergrowth - oak, hickory, cedar, spruce, elm, lynn. Undergrowth - hickory, oak.
- T 1 N, R 6 E Land rolling 2nd class to level 2nd class, broken with low, wet prairie and barren land. Huron River crosses the township, also has four lakes. Timbergrowth - oak, ash, hickory, lynn, tamarack, elm. Undergrowth the same.

Macomb County

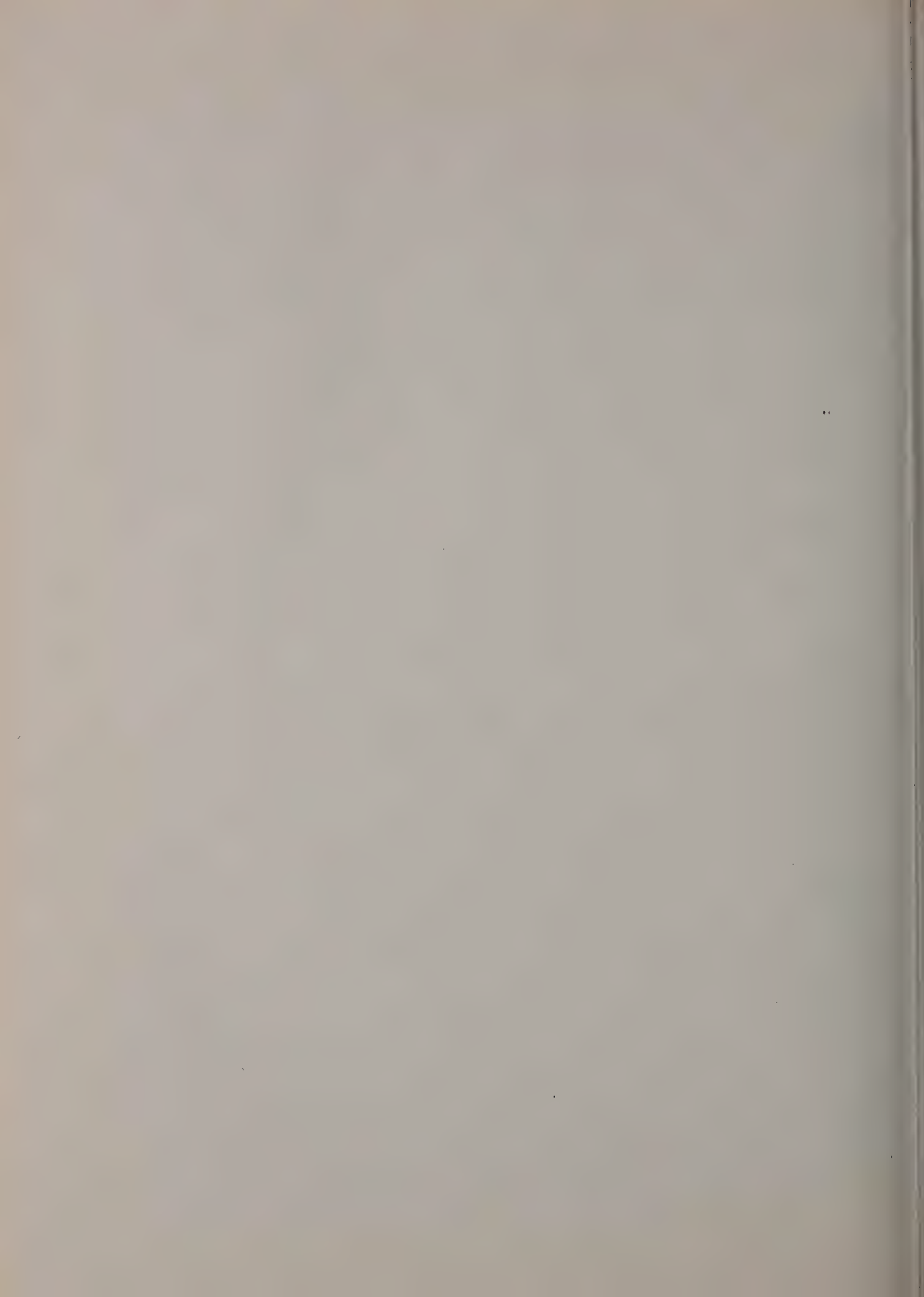
- T 1 N, R 12 E Land level, rich and rolling 2nd class, level 2nd class, all broken with swamp, extensive prairie, heavy with brush. Timbergrowth - oak, birch, cypress, maple, beech, sycamore, poplar. Undergrowth - ironwood, beech, aspen, spice, prickly ash.
- T 1 N, R 13 E Land level 2nd class good, also poor burnt timber, fallen; all broken with swamp and prairie, low and wet. Timbergrowth - oak, beech, ash, elm, lynn, poplar, sugar, sycamore, tamarack. Undergrowth - willow, spice, briar, ironwood, prickly ash.
- T 2 N, R 12 E Land level rich, fine 1st class, some rolling 1st class and rolling and level 2nd class, also some poor and swamp. Huron river crosses northeast quarter of township. Timbergrowth - oak, ash, elm, beech, sugar, lynn, maple. Undergrowth - same and spice, prickly ash, dogwood, ironwood, sassafras and hazel.
- T 2 N, R 13 E Land level 2nd class with some poor, burnt area and low, wet prairie broken with swamp. Huron River runs through the township east and west. Timbergrowth oak, poplar, beech, sugar, ash, lynn, tamarack, hickory, maple; undergrowth spice and prickly ash.
- T 3 N, R 12 E Land level 2nd class (tolerable) to rolling 2nd class, level 1st class, extensive area of poor thin oak land some hilly, low, wet, all broken with swamp. River crosses southwest quarter of township. Timbergrowth - oak, ash, beech, lynn, sugar, walnut. Undergrowth - prickly ash, spice, ironwood, hazel and alder.
- T 4 N, R 12 E Land poor, burnt, hilly, barren, also level 1st class, rolling and level 2nd class (tolerable). Streams throughout township. Timbergrowth - ash, elm, sugar, poplar, walnut, oak, cedar, spruce. Undergrowth - prickly ash, spice and hazel.
- T 5 N, R 12 E Land poor and hilly, burnt, fallen timber, some good tolerable land, all broken by swamp and prairie. Timbergrowth - elm, ash, maple, beech, oak, cedar, spruce, sugar, lynn, aspen, tamarack. Undergrowth - ironwood, ash, prickly thorn, alder, willow.

Monroe County

- T 5 S, R 6 E Land good some high, rich, low level rich, extensive areas of flat and wet and swamp (impassable). Streams flow throughout the township. Timbergrowth - cottonwood, ash, maple, elm, sycamore, lynn.
- T 5 S, R 7 E Land good with some barrens, some rich, level, wet land, all broken with wet prairie and swamp. Timbergrowth - oak, aspen, elm, maple, hickory, walnut, ash, lynn, sycamore. Undergrowth sassafras and grapevine.
- T 5 S, R 8 E Land good to 1st rate and rich; extensive wet, flat prairie and swamp. Timbergrowth - oak, elm, ash, aspen, hickory, beech, lynn and sugar.
- T 5 S, R 9 E Land good farming land, high and rich, low and rich, broken with low, wet land and swamp. Timbergrowth - oak, ash, beech, sugar, lynn, elm, sycamore; undergrowth same and spice.
- T 5 S, R 10 E Land good farming with some level rich and some high barren, broken by prairie and marsh; extensive swamp along Huron River "not fit for cultivation only muskrats," Timbergrowth - ash, elm, maple, sugar, beech, lynn, sassafras, hickory, walnut. Undergrowth - spice, sugar, ash. Surveyors comment on Horse Isle, Detroit River: "Good land worth \$20.00 per acre which I think is a good approximation of its value."
- T 6 S, R 6 E Land good, high and rich, low rich; extensive flat, wet prairie and swamp. River Crosses SE $\frac{1}{4}$. Timbergrowth - oak, lynn, ash, maple, elm, sycamore, walnut, hickory. Undergrowth - hazel and grapevine.
- T 6 S, R 7 E Land high and good, some level and rich. All broken with wet prairie and swamp. A river crosses the township; extensive wet, flat land. Timbergrowth - oak, elm, sycamore, maple, lynn, ash. Undergrowth - sassafras and hazel.
- T 6 S, R 8 E Land good and level rich, also, barrens, wet, flat and prairie. Broken by swamps. Timbergrowth - good and uplands thin in low flats, oak, elm, hickory, ash, sycamore, sand ridges through swamps. River Raison crosses this township.

Monroe, cont'd.

- T 6 S, R 9 E Land good farming, some high and rich, also, level and rich; open prairie - low and wet, all broken with swamp. Timbergrowth - sugar, beech, ash, elm, lynn, sycamore, walnut.
- T 6 S, R 10 E Land good farming, high and rich, broken with low, wet prairie and swamp. Timbergrowth - ash, elm, maple, sugar, lynn, walnut and sycamore.
- T 7 S, R 6 E Land good to pretty good, high and low barrens; extensive low, wet prairie, some low, rich land and some high and rich; all broken with swamp (impassable). River crosses the NW $\frac{1}{4}$. Timbergrowth - oak, lynn, elm, ash, sycamore, sassafras and hickory.
- T 7 S, R 7 E Land good, level, rich land, broken with barren spots, good and poor, wet prairie and swamps. Timbergrowth - oak, hickory, aspen, elm, ash. Undergrowth - hazel, aspen, ash, grapevine, grass.
- T 7 S, R 8 E Land good, some level, rich and rolling 1st class, broken with extensive low, wet areas and marsh. Timbergrowth - oak, hickory, ash, sycamore, lynn, elm, walnut. Undergrowth - aspen, willow, grass, weeds. Township crossed by river.
- T 7 S, R 9 E Land poor marsh and swamp, muskrat marsh, cat tails, impassable swamp ridge at lake shore; some high, rich soil, some good, rich land. Upland timbergrowth - ash, oak, hickory, elm, lynn, sycamore; undergrowth - grass, grape, rice, cat tail.
- T 8 S, R 6 E Land very fine, rich, to good and pretty good, some poor oak, all broken with swamp. Two lakes in this Township. Timbergrowth - oak, hickory, ash, elm, sugar. Undergrowth sassafras, aspen, spice and ash.
- T 8 S, R 7 E Land good farming and level, rich, with poor and sandy. All broken with marsh and prairie. Timbergrowth - oak, hickory, ash, poplar, walnut. Undergrowth same with hazel and aspen.
- T 8 S, R 8 E Land, level, rich, good towards the lake and along river extensive, impassable marsh, wet prairie. Timbergrowth - on uplands oak, elm, walnut, sycamore, lynn. Undergrowth - hazel, sassafras, grass and weeds.
- T 9 S, R 6 E Fractional township on State line, one-half mile wide. Land good, very fine, rich. Some thin oak openings. Timbergrowth oak, ash, hickory, sugar, maple, sycamore, cotton. Undergrowth sassafras and spice.



Monroe, cont'd.

- T 9 S, R 7 E Fractional township on State line, one-half mile wide.
Very good land, rich and level, some poor, sandy.
Timbergrowth - elm, hickory, walnut, oak and elm.
- T 9 S, R 8 E Fractional township on State line, one-half mile wide.
Land good, rich, very fine, level, land with some
marsh on east side. Timbergrowth - oak, ash and
hickory.

Oakland County

- T 1 N, R 7 E Land rolling 2nd class to level 2nd class with some rolling and level 1st class, all broken with poor scrub barren land. Timbergrowth - sugar, oak, hickory, beech, elm, ash; undergrowth same.
- T 1 N, R 8 E Land rolling good 2nd class and level 2nd rate, also level rich, all broken with marsh and swamp. Timbergrowth - oak, sugar, ash, walnut, hickory, lynn, elm, aspen. Lake in north central part of township, high banks, good land.
- T 1 N, R 9 E Land level rich to rolling rich with rolling 2nd class and low wet - hilly, barren. Broken barrens. Timbergrowth - sugar, beech, lynn, ash, hickory, elm, poplar, walnut; undergrowth prickly ash, ironwood, cherry, hazel, boxwood, alder, red budd.
- T 1 N, R 10 E Land rolling good, level good, rolling rich, level rich; all broken with low wet, poor scrub oak land, some hilly barren land. Streams throughout township. Timbergrowth - sugar, beech, lynn, ash, maple, aspen, sycamore, walnut; undergrowth the same with spice and prickly ash.
- T 1 N, R 11 E Land low wet, level 1st class, level 2nd class, rolling 2nd class, broken with prairie and swamp, stream through north half. Timbergrowth - ash, oak, elm, poplar, cypress, maple, aspen, hickory; undergrowth - spruce, beech, spice, prickly ash.
- T 2 N, R 8 E Land level 2nd class and rolling 2nd class, broken with barrens and swamp. Four small lakes with impassable swamp near lake. Timbergrowth - oak, hickory, ash, spruce, tamarack; undergrowth - willow, oak.
- T 2 N, R 9 E Land hilly, barren, poor oak, with some rolling 2nd class, level 1st class, rich and level 2nd class; all broken with swamps and prairie. Many lakes in north half of township. Timbergrowth - oak, aspen, ash, lynn, poplar, walnut, tamarack, hickory, elm; undergrowth - hazel, ironwood, red budd, sassafras and grapevine.
- T 2 N, R 10 E Land hilly, poor, thin scrub, stoney; some level 1st class and some tolerable, probably rolling 2nd class; all broken with swamp. Ten lakes in township. Timbergrowth - beech, ash, elm, hickory, walnut, lynn. Undergrowth - aspen, hazel, sassafras.
- T 2 N, R 11 E Land level, rich, good. Fine rich soil, 1st class to level 2nd class, also low and wet, broken throughout with swamp. Timbergrowth - oak, ash, elm, lynn, sugar, maple. Undergrowth - spice, prickly ash, sassafras.

Oakland, cont'd.

- T 3 N, R 8 E Land rolling 2nd rate and level 2nd rate, mixed with poor barrens and swamp. Four small lakes in the township. Timbergrowth - oak, aspen, tamarack, hickory, lynn, chestnut, spruce; undergrowth - thick willow, weeds and oak.
- T 3 N, R 9 E Land poor, barren, hilly oak, thin timber, some level 1st class and prairie, rich soil. All broken with extensive tamarack swamp. River runs through township and there are twelve lakes. Timbergrowth - oak, ash, elm, walnut, hickory, lynn, maple and tamarack. Undergrowth - alder and willow.
- T 3 N, R 10 E Land poor, hilly, barren oak, some level 1st class and rolling 2nd class (tolerable); all broken with swamp, some impassable; five lakes. Timbergrowth - oak, hickory, aspen, lynn. Undergrowth same.
- T 3 N, R 11 E Land poor, hilly, very hilly, thin, badly timbered, some level 2nd class to 1st class, rolling tolerable 2nd class. River crosses central part of township east and west. Timbergrowth - oak, beech, walnut, lynn, tamarack, elm, hickory; undergrowth prickly ash and spice.
- T 4 N, R 8 E Land broken and hilly, some rolling 2nd and level, also rough, poor, barren and swamp. Two small lakes. Timbergrowth - oak, tamarack, aspen, ash and maple.
- T 4 N, R 9 E Land rolling and level, poor, barren, oak; some rolling 2nd class and level 1st class with rich prairies. Wide prairie extends along the stream through township. Four small lakes. Timbergrowth - oak, pine, sugar, ash, tamarack, birch, pine, elm. Undergrowth - beech, ash, hazel, alder and sassafras.
- T 4 N, R 10 E Land poor, hilly, scrub, barren; Level poor, very hilly - badly timbered with extensive swamp; some 2nd class rolling or level. Twelve lakes. Timbergrowth - oak, aspen, pine, tamarack and ash.
- T 4 N, R 11 E Land poor, hilly, very hilly, barren, some rolling 2nd class (tolerable), all broken with swamp and prairie. Timbergrowth - oak, elm, lynn, walnut, hickory and tamarack.
- T 5 N, R 9 E Land rolling and level, poor, barrens, some level 1st class, extensive tamarack swamps, some are very hilly, rough. Timbergrowth - oak, aspen, tamarack, beech, ash, ironwood. Undergrowth - oak, sassafras, oak, alder.

Oakland, cont'd.

- T 5 N, R 10 E Land poor, hilly, very hilly, scrub, barren, some wet. Eight small lakes; extensive swamp throughout township, particularly north half, some impassable. Township very badly timbered with oak, tamarack, pine and aspen.
- T 5 N, R 11 E Land poor, hilly, very hilly, barren, thin soil, badly timbered, burnt-over, fallen timber; all broken with swamp. Timbergrowth - oak, lynn, ash, elm, sugar, pine, tamarack, maple and aspen. Undergrowth same.

Ottawa County

- T 5 N, R 13 W Land rolling 1st class and rolling 2nd class, some level 2nd class, all broken with extensive swamps. Streams throughout township. Timbergrowth sugar, beech, elm, lynn, ash, pine, maple, oak, hickory. Undergrowth same.
- T 5 N, R 14 W Land rolling 1st class, rich and rolling 2nd class, good, some level 1st and 2nd class mixed with poor 3rd class and swamp. Timbergrowth beech, sugar, ash, elm, lynn, hemlock, oak, maple, cedar. Undergrowth same.
- T 5 N, R 15 W Land rolling 2nd class, level 2nd class and poor 3rd class, some rolling 1st and level 1st class, all broken with swamp. River flows through $S\frac{1}{2}$ of township. Timbergrowth beech, sugar, ash, elm, hemlock, tamarack, pine, hickory, sycamore; undergrowth same.
- T 5 N, R 16 W Land poor 3rd class, barren to sand ridges along lake, also rolling 2nd class and level 2nd class, broken with swamp. Timbergrowth beech, ash, hemlock, pine, maple. Undergrowth same with alder.
- T 6 N, R 13 W Land rolling 2nd class and level 2nd class, also rolling to gently rolling 1st class and level 1st class, all broken with swamp. Timbergrowth ash, elm, lynn, sugar, butternut, pine, cedar, tamarack. Undergrowth the same. Grand River crosses NE corner, low bottom, land along river.
- T 6 N, R 14 W Land level and rolling, poor, low, wet 3rd class and swamp, some level 2nd class with rolling 2nd and level 2nd class. Timbergrowth beech, sugar, ash, lynn, oak, maple, pine, hemlock, tamarack and birch.
- T 6 N, R 15 W Land poor 3rd rate, low, wet and hilly, barren; swamp throughout township, also rolling 2nd class. Timbergrowth hemlock, pine, sugar, beech, lynn, tamarack, ash, birch, oak; undergrowth same with alder and briars.
- T 6 N, R 16 W Land poor 3rd class, barren, worthless, thin soil, some rolling 2nd class, high sand hills along lake shore. Timbergrowth tamarack, alder, pine, hemlock; undergrowth very thick same as timbergrowth.

Ottawa, cont'd.

- T 7 N, R 13 W Land rolling 2nd class some rolling 1st class, level 1st class and 2nd class, all broken with poor 3rd class land and extensive swamps, with deep ravines. Grand River crosses SW $\frac{1}{4}$ with low bottom lands. Timbergrowth - beech, sugar, ash, elm, lynn, pine, maple, alder, sycamore. Undergrowth hazel, sassafras, beech, ironwood, briars.
- T 7 N, R 14 W Land rolling 2nd class and level 2nd class, some gently rolling 1st class. Broken with poor, level, rolling 3rd class barrens and swamp. Grand River crosses N $\frac{1}{2}$ of township with some dry, rich, bottom land. Timbergrowth - ash, beech, sugar, elm, hemlock, pine, lynn, birch, cedar, alder; undergrowth same.
- T 7 N, R 15 W Land rolling 2nd class, level 2nd class and poor 3rd class rolling or level and swamp. Grand River crosses NE corner of township. Timbergrowth - hemlock, ash, maple, tamarack; undergrowth same and cranberry marsh.
- T 7 N, R 16 W Land poor 3rd rate, worthless - thin soil, low, wet to swamp, some rolling 2nd class, high sand hills along shore of Lake Michigan, pine, timber. Timbergrowth - hemlock, beech, pine, oak, tamarack, ash, birch; undergrowth same, thick and briars.
- T 8 N, R 15 W Land poor 3rd rate, some rolling, some level, low, wet, extensive swamp, also rolling 2nd class and level 2nd class. Grand River flows across south part of this township, low bottom land along river. Timbergrowth - pine, oak, beech, sugar, elm, lynn, hemlock, maple, tamarack. Undergrowth same.
- T 8 N, R 16 W Land poor 3rd class, barren, thin soil, rough sand hills along shore of Lake Michigan, loose sand, some rolling 2nd class land. Grand River forms a large bayou in this township, extensive swamps. Timbergrowth - pine, oak, hemlock, beech.
- T 8 N, R 17 W Fractional township on Lake Michigan. Land poor, rough sand hills. Timbergrowth - beech, pine, cedar, aspen, sugar.

St. Joseph County

- T 5 S, R 9 W Land rolling 2nd rate to rolling 1st rate, broken by open prairie, uneven 3rd rate land and open, wet marsh and swamp. Lake in $SE\frac{1}{4}$ and river crosses $SE\frac{1}{4}$. Timbergrowth - B. W. Y. oak, beech, oak, ash, hickory, elm, lynn, walnut. Undergrowth - grape and flags.
- T 5 S, R 10 W Land rolling 2nd to rolling 1st class, with level, rich, prairie land. St. Joseph River crosses southeast corner of Township, with lake in $NW\frac{1}{4}$; low, wet marsh throughout township bordering streams, some extensive swamps. Timbergrowth - B. W. Y. oak, hickory, beech, maple, ash, elm, sycamore, lynn. Undergrowth - hazel, grape, rose and willow.
- T 5 S, R 11 W Land rolling 2nd rate, some rolling 1st rate, with open, rich prairie. Township broken by swamp, also streams; extensive tamarack south central and north central. One lake in south central part of township. Timbergrowth - oak, hickory, ash, elm, lynn, sycamore and tamarack. Undergrowth - hazel, rose and willow.
- T 5 S, R 12 W Land rolling and hilly, 2nd rate to rolling 1st rate, also level 1st rate land and broken, hilly and stoney 3rd rate land. Entire township broken by marsh, swamp and wet prairie. River and tributaries cross south half of $NW\frac{1}{4}$ of township. Timbergrowth - W. R. Y. oak, hickory, tamarack, birch, walnut, beech, maple, elm, sassafras. Undergrowth - box and spice.
- T 6 S, R 9 W Land rolling 1st rate to rolling 2nd rate, some level 2nd rate and open, dry, level, rich prairie. Seven lakes in $E\frac{1}{2}$ of township, beautiful boiling spring in Section 7. Township broken with swamp and marsh areas. Timbergrowth - B. W. Y. Oak, ash, beech, W. Wood, lynn, sugar, elm and hickory. Undergrowth - sassafras, briars, grape, rose, willow.
- T 6 S, R 10 W Land rolling 1st class, rolling 2nd class and open, level, rich, prairie land, rich soil. Extensive prairie in north central part of township. River crosses $NW\frac{1}{4}$ of township; streams across $SW\frac{1}{4}$. Three lakes in south central part. Marsh and swampy along streams. Timbergrowth - B. W. Y. oak, hickory, ash. Undergrowth - rose, willow and grass.
- T 6 S, R 11 W Land rolling 2nd class, some level 1st class with open rich, prairie, also rolling to uneven 1st class. St. Joseph River crosses township, with streams across $S\frac{1}{2}$ and $NW\frac{1}{4}$ of township bordered by marsh and swamp. Four islands in river. Timbergrowth - oak, hickory, lynn, sugar, butternut and elm.

St. Joseph, cont'd.

- T 6 S, R 12 W Land rolling 1st rate to uneven 2nd rate, some level, 1st class land, low and rich, some hilly 3rd class with swamp marsh and wet area. The west central part of township cut up by a number of lakes. St. Joseph River touches southeast corner. Timbergrowth - hickory, oak, poplar, elm, beech, ash, lynn, butternut and sugar, with undergrowth sassafras, spice and briar.
- T 7 S, R 9 W Land, dry, level, rich, open and rolling 1st rate, some level 2nd rate and uneven marshy land, wet swamp in central part of township. Six lakes with timbergrowth - B. W. oak, hickory, beech, lynn, walnut, ash, birch, tamarack.
- T 7 S, R 10 W Land rolling 1st class to rolling 2nd class, with some level 1st class and open, rich prairie land in southeast corner of township; some uneven marshy, 2nd class land. Timbergrowth - B. W. Y. oak and hickory. Undergrowth - willow, rose and grape.
- T 7 S, R 11 W Land rolling to hilly 2nd class, some 1st class and level 2nd rate. Open prairie of rich dry land, no timbergrowth. Township broken by swamp and marsh along stream; extensive bad swamp in $SE\frac{1}{4}$ of township, also, located here is a large beautiful lake, bluff margin. Timbergrowth - ash, hickory, R. W. Y. oak; undergrowth - willow and grape.
- T 7 S, R 12 W Land open prairie, level, rich, beautiful soil 1 to 2 feet deep, no timber, and rolling 2nd class land with some rolling 1st and level 2nd rate, also uneven 3rd rate land with open, wet prairie and swamp. St. Joseph River crosses easterly part; eight islands. Timbergrowth - W. R. Y. oak, sycamore, hickory, tamarack, walnut, poplar and ash.
- T 8 S, R 9 W Land level barrens, thin soil, parts rolling 1st class, some rolling dry prairie with good, rich soil. Township broken by marsh and swamp. River crosses township; four lakes. Timbergrowth - W. Y. oak, hickory, pine, with undergrowth - hazel, thorn, plum.
- T 8 S, R 10 W Land rolling 2nd class and rolling barrens, thin soil and rolling 1st class to level 1st class, with prairie in northeast corner of township; stream crosses township with marsh and swamp bordering stream. Timbergrowth - W. Y. R. oak, cherry, hickory, sugar, beech, elm, walnut; undergrowth thorn, plum, hazel, vines and briars.

St. Joseph, cont'd.

- T 8 S, R 11 W Land rolling barrens, thin soil, some places good soil; rolling 2nd rate to level barrens, thin soil; some open prairie, level, rich lands. This township broken by stream, river and lakes with marsh and swamp. Timbergrowth - W. R. Y. oak, hickory and ash.
- T 8 S, R 12 W Land rolling barrens, good soil, open timber, also rolling 1st class prairie, level to open rich prairie. Pigeon River crosses township; St. Joseph River crosses northwest corner, some low, wet areas in south part of township. Timbergrowth - W. R. Y. B. oak, hickory, beech, sugar, walnut and butternut.

Van Buren County

- T 1 S, R 13 W Land level wet, horrid, dismal swamp; some rolling, rich land to hilly 2nd class, also rolling land, thin soil. Four lakes in township, stream through east side of township; swamp along stream. Timbergrowth - tamarack, birch, ash, beech, oak, pine, elm, lynn; undergrowth - hazel, briar and vines.
- T 1 S, R 14 W Land gently rolling 1st rate to 2nd rate, some level 2nd rate with open, wet swamp in east central part bordering small streams. Six small lakes in township. Timbergrowth - sugar, birch, w. oak, elm, poplar, hickory, hemlock and pine.
- T 1 S, R 15 W Land rolling 2nd rate to rolling 1st rate, some broken 2nd rate; extensive swamp and marsh areas along stream and bordering nine lakes located in the township. Timbergrowth - beech, maple, pine, tamarack, lynn, butternut.
- T 1 S, R 16 W Land rolling 2nd rate, some broken areas, deep ravines, some gently rolling 1st class. Swamp and wet marsh areas along tributaries of main stream which crosses township. Timbergrowth - beech, sugar, elm, lynn, ash and tamarack.
- T 1 S, R 17 W Land rolling 1st rate and level 2nd rate with some broken poor land, hemlock land. Sand hills near lake Michigan. Timbergrowth - beech, sugar, maple, poplar, lynn, pine, hemlock, beech and birch. North part crossed by Black River.
- T 2 S, R 13 W Upland rolling rich and rolling 2nd rate; extensive 3rd class land in central and northeast part of township with low wet swamps, particularly along river which runs diagonally northeast across the township. Township includes four small lakes. Timbergrowth - W. R. Y. oak, hickory, tamarack, lynn, sugar, poplar and butternut.
- T 2 S, R 14 W Land gently rolling 1st rate, some 2nd rate, some level 1st rate and 2nd rate. Large area in west central is swamp, low, wet land and marsh along streams. Paw Paw River crosses south half of township; three small lakes. Timbergrowth - R. W. Y. oak, beech, tamarack, alder, ash, willow, elm, maple and pine.

Van Buren, cont'd.

- T 2 S, R 15 W Land rolling to level 2nd rate, some rolling, rich 1st rate and level 1st rate; extensive low, wet, 3rd rate land, level, wet and swamp particularly along small streams. Township crossed by Paw Paw River. Timbergrowth - sugar, beech, walnut, poplar, butternut, tamarack and alder.
- T 2 S, R 16 W Land rolling rich to hilly 2nd rate; small, low, wet, rich areas to 2nd class; extensive 3rd rate and swamp areas including worthless land. Eight small lakes with three large lakes, all bordered by low areas. Timbergrowth - sugar, beech, lynn, poplar, cherry, sycamore, ash, willow, butternut and walnut.
- T 2 S, R 17 W Township on Lake Michigan bordered by sand hills, some rolling, poor land with small amount of rolling rich land; extensive low, wet swamp and 3rd rate land, small area of level, rich, dry land. Timbergrowth - beech, sugar, lynn, maple, W. ash, hemlock, pine and hickory.
- T 2 S, R 18 W Fractional township bordering Lake Michigan and land rolling and pitching, poor, broken with swamp and sand hills. Timbergrowth - hemlock, beech, oak and pine.
- T 3 S, R 13 W Land gently rolling 1st class to level rich 1st rate barren, some level, wet marsh and swamp areas along stream which crosses this township. Three small lakes in township. Timbergrowth - oak, poplar, walnut, lynn, beech, elm and maple.
- T 3 S, R 14 W Land level rich to gently rolling 1st class, some level wet area along stream; large wet swamp along river in southeast part of township. River runs north and south through east half of township. Timbergrowth - beech, maple, elm, lynn, tamarack, birch, sycamore. "The S.E. part of this town being swampy will no doubt remain unsold for many years. The rest is good barrens or what should be termed open timber land and heavy timbered land of good quality and saleable. The stream which enters this town on E side Sec. 13 and the Pawpaw both afford good mill sites anywhere in Sec. 1 and 12. The Legislature of Michigan have appointed commissioners to locate a great road from Detroit by the Kalamazoo to the mouth of the big St. Joseph and said road, must of course enter the NE corner of this Town. I think in Sec. 1 or 12. The physical difficulties either to the S or to the N being such as to compel to come here and also because it is almost in the direct course. The location of said road will induce an early settlement on it."

Van Buren, cont'd.

- T 3 S, R 15 W Land rolling 1st class and level 1st class, 1st rate barren. Township is cut by swamp and marsh area. Timbergrowth - sugar, lynn, beech, poplar, butternut, walnut, sycamore. "Township is considerably rolling well-timbered and in some parts well-watered, favored indeed by the Paw Paw River which is very deep, crooked and narrow. Difficult to ascend on account of fallen timber, much of it saleable."
- T 3 S, R 16 W Land level rich first rate "blessed with richest soil" and gently rolling, rich land, a few low, wet marsh areas. Paw Paw River crosses township with tributaries, two small lakes. Timbergrowth - sugar, beech, elm, tamarack, walnut and butternut.
- T 4 S, R 13 W Land rolling 2nd rate to hilly, oak openings and rolling 1st rate land, open timber, some level, wet rich land and poor 3rd class with wet tamarack swamp in SE $\frac{1}{4}$. There are four large lakes and two small lakes in the township. Timbergrowth - oak, beech, sugar, ash, elm, walnut and hickory.
- T 4 S, R 14 W Upland rolling 1st class and hilly 2nd class, some open prairie and level 1st class. River runs from SW to NE across township. Is bordered by heavy, swamp, thick growth of tamarack. Timbergrowth - tamarack, cedar, elm, oak, lynn, poplar, hickory, ash and walnut.
- T 4 S, R 15 W Land level, poor, oak opening, sandy; some rolling 1st class with level 1st class area. Swamp low, wet, along stream in SE part of township. Three small lakes. Timbergrowth - sugar, beech, poplar, ash, elm, maple, tamarack.
- T 4 S, R 16 W Land rolling 2nd class oak openings, partly level 1st rate, with some gently rolling 1st rate, low, wet, swamp area in NW and SE parts. Six small lakes in this township. Timbergrowth - W. R. & Y. oak, beech, sugar, ash, lynn, hickory and tamarack with undergrowth oak, willow, grapevine, sassafras and green briars.

Washtenaw County

- T 1 S, R 3 E Land rolling 2nd class, sandy, land and hilly, sandy 2nd and 3rd land, broken with marsh and prairie. Lakes in $S\frac{1}{2}$ and $NE\frac{1}{4}$ of township. Timbergrowth - oak, hickory, tamarack; undergrowth - willow, grass and weeds.
- T 1 S, R 4 E Land rolling good land and hilly good land, broken with poor low, wet land. River on east side of township. Large lake northeast corner; small lakes throughout township. Timbergrowth - oak, tamarack, ash and hickory.
- T 1 S, R 5 E Land rolling 2nd class and some rich plains, also some poor barren and hilly barren. River crosses southwest corner of the township; three lakes in township which is also broken with some prairie and marsh. Timbergrowth - ash, hickory, W. oak, sycamore, tamarack.
- T 1 S, R 6 E Land rolling good to good and pretty good, some very find level rich land; broken with poor, low, wet land and extensive swamp and prairie. Two lakes in this township. Timbergrowth is oak, hickory, sugar, ash, lynn, beech; undergrowth - hazel and grass.
- T 1 S, R 7 E Land good to fine, tolerable farm land, some rolling and level, good land, broken with extensive swamp throughout township. Timbergrowth - oak, lynn, sugar, maple, ash, tamarack, hickory, walnut with undergrowth of hazel, dogwood, alder, grapevine and sassafras.
- T 2 S, R 3 E Land level 2nd class with some 1st class rolling and level land, broken with poor barren land and marsh and prairie. River crosses $N\frac{1}{2}$ of township. Timbergrowth - oak, hickory, tamarack with undergrowth of oak, grass and weeds.
- T 2 S, R 4 E Land rolling good oak land, some hilly, good level oak land, broken with poor oak barrens and wet prairie and marsh. One area - handsome plain, rich. Timbergrowth - oak, ash, lynn, hickory, tamarack. Undergrowth - willow.
- T 2 S, R 5 E Land good oak 2nd class with some rolling, rich, also level 1st and 2nd class, some poor barren land all broken with prairie and swamp. River crosses $N\frac{1}{2}$ of township. Timbergrowth - W. oak, hickory, elm, ash and sugar.

Washtenaw, cont'd.

- T 2 S, R 6 E Land rolling, fine and good to good, level; some poor barren land; all broken with prairie and swamp. River crosses township. Timbergrowth - oak, ash, hickory, aspen, beech, lynn; undergrowth - willow and sassafras.
- T 2 S, R 7 E Land rolling 2nd class and level 2nd class, broken with wet prairie and swamp. River crosses southwest corner. Timbergrowth - oak, sycamore, elm, tamarack, beech, ash, sugar, aspen; undergrowth - grass, spice, sassafras and hazel.
- T 3 S, R 3 E Land open oak 2nd class land, thin timber, some rolling 2nd class and rich prairie, broken with oak barrens, poor 3rd class land and wet prairie and swamp. River crosses $S\frac{1}{2}$ of township. Timbergrowth - oak, ash, tamarack, hickory, W. wood. Undergrowth - scrub oak.
- T 3 S, R 4 E Land poor barren, hilly and poor, some good farming, broken by marsh and prairie; extensive swamp. Timbergrowth - oak, hickory, ash, walnut, lynn, tamarack. Little or no undergrowth.
- T 3 S, R 5 E Land rolling 2nd class with some rolling 1st class. Level 1st class and 2nd class, broken with prairie and poor barren land. Timbergrowth - W. oak, lynn, ash, elm, sugar and hickory.
- T 3 S, R 6 E Land good and pretty good, some 1st rate rolling and level extensive prairie, wet low together with poor barren and swamp. Timbergrowth - oak, hickory, lynn, sugar, ash, elm. Undergrowth - aspen, hazel and spice.
- T 3 S, R 7 E Land level good with some rich soil. Large area of township poor oak land and prairie and swamp. River crosses the township. Timbergrowth - thin, ash, sugar, aspen, hickory, beech, elm and walnut. Undergrowth - sassafras and grapevine.
- T 4 S, R 3 E Land oak openings, thin timber, 2nd class with rolling 1st class and some level 2nd class. Timbergrowth - oak, ash, poplar, hickory, lynn, elm. River crosses NE corner and four lakes in $S\frac{1}{2}$ of township.
- T 4 S, R 4 E Land rolling to uneven, 2nd rate or good; broken with ridges and hilly areas, poor land, also broken with swamp. River runs through $W\frac{1}{2}$ of township. Timbergrowth - W. B. oak, elm, lynn, hickory and ash.

Washtenaw, cont'd.

- T 4 S, R 5 E Land 1st rate, some gently rolling and good farming land, rolling 2nd class, broken with barrens and swamp. Timbergrowth - beech, sugar, oak, ash, walnut, lynn. Undergrowth - same with hazel.
- T 4 S, R 6 E Land pretty good, 1st rate; level, poor, wet, barren poor; all broken with extensive swamp. River crosses SW $\frac{1}{4}$ with some good bottom land. Timbergrowth - ash, elm, beech and lynn.
- T 4 S, R 7 E Land flat, wet prairie and bad swamp; some good oak also some 1st rate, rich land together with some poor level land. Timbergrowth - thin - oak, ash, elm, maple, beech, poplar and tamarack. Undergrowth - sassafras and grapevine.

Wayne County

- T 1 S, R 8 E Land good to tolerably good, and tolerably good meadow, also some 1st class, level, rich land, all broken with barrens and swamp. River crosses township. Timbergrowth - oak, beech, lynn, sugar, ash, hickory, walnut, tamarack; undergrowth - prickly ash, spice, hazel, sassafras.
- T 1 S, R 9 E Land good to 1st rate and rich, some level and rich, also low with river through township. Timbergrowth - oak, ash, beech, elm, hickory, lynn, maple; undergrowth - spice and beech.
- T 1 S, R 10 E Land good farming, some high prairie, all well timbered; extensive low, wet areas, particularly along river which runs north and south through center of township; gum sunk (mud) cypress swamps along river. Undergrowth - beech, ash, sassafras and spice.
- T 1 S, R 11 E Land good farming with extensive cypress swamp and low, wet marsh and prairie; some level, rich land. Upland well timbered - beech, oak, ash, elm, lynn, maple, hickory; undergrowth - spice, beech, part private claims.
- T 1 S, R 12 E Land good, well timbered, level rich and high level, with extensive marsh and swamp. Timbergrowth - beech, sugar, oak, ash, elm, lynn, generally cut-over.
- T 1 S, R 13 E Land generally high, good farm; some low, good soil, also low and wet, broken by marsh. Timbergrowth thick - ash, poplar, elm, sugar, lynn, beech, sassafras and sycamore.
- T 2 S, R 8 E Land level, rich to good, also good and pretty good general farming land; extensive flat, wet areas and swamps. Streams throughout the township. Timbergrowth - ash, hickory, elm, beech, sycamore, maple, lynn, walnut; undergrowth - spice, prickly ash, hazel and grass.
- T 2 S, R 9 E Land good farming, some rich, level rich, some high barren land, thin soil, all broken with prairies; low wet and deep swamp. Timbergrowth - beech, hickory, oak, ash, maple, elm. Undergrowth - spice, beech, dogwood.
- T 2 S, R 10 E Land good farming and level, rich; broken with low, wet prairie and swamp. Timbergrowth - ash, beech, sugar, oak, elm, lynn, poplar. Undergrowth - ash, spice and beech.

Wayne, cont'd.

- T 2 S, R 11 E Land good farming, level rich, low wet; extensive prairie and marsh. Timbergrowth - thick beech, sugar, ash, lynn, poplar, sycamore; part private claims.
- T 2 S, R 12 E Land high and level, with low, wet areas. Timbergrowth - lynn, sycamore, elm, beech, principally cut-over.
- T 3 S, R 8 E Land flat wet swamps, some level good and good land to pretty good broken with barren poor. Timbergrowth - thin, sycamore, beech, elm, lynn, sugar, ash, oak, walnut, hickory, poplar. River crosses township.
- T 3 S, R 9 E Land good farming, well-timbered, some level rich, also poor, barren, and prairie, low and wet, broken by swamps. Timbergrowth - oak, poplar, ash, elm, lynn, walnut, maple; undergrowth - spice and beech.
- T 3 S, R 10 E Land generally, good farming. High, rich and level rich, broken with high, barren and extensive wet prairie and swamp. Timbergrowth - sugar, beech, oak, ash, lynn, poplar, walnut.
- T 3 S, R 11 E Fractional township on Detroit River, land good, farming, some high level prairie, some low wet. Timbergrowth - thick, sugar, beech, oak, ash, elm, lynn, maple. Part private claims.
- T 4 S, R 8 E Land flat wet prairie to swamp - poor, barren, sandy, small amount, level rich and good. Timbergrowth - thin, elm, oak, cottonwood, ash, hickory, aspen, maple, lynn, sycamore.
- T 4 S, R 9 E Land good farming land, and level rich, some low, wet, all broken with swamp. Huron River crosses the township from northwest corner to southeast corner. Timbergrowth - thick, oak, ash, elm, hickory, maple, sycamore, walnut; undergrowth - spice, beech, ash, dogwood.
- T 4 S, R 10 E Land good farming, high level rich, level rich; all broken with low, wet and swamp, southeast corner touches Detroit River. Timbergrowth - sycamore, elm, oak, ash, beech, sugar, lynn, hickory, willow, alder, walnut.

Wayne, cont'd.

T 4 S, R 11 E Fractional township on river. Land high level and rich to good, farming, some level rich, also low and wet, open prairie. Timbergrowth - sugar, beech, oak, ash, elm, lynn, hickory.

PRIOR LAND SALES IN MICHIGAN TERRITORY AND ADJACENT REGIONS

Michigan

As of March 25, 1822, there were approximately 12,613,000 acres of land in the eastern part of Michigan Territory and northwestern Ohio which had been cleared of the claims of Indian title. See pages 31 and 32 for a list of the tracts and their acreages. This land lay to the north, east, and southeast of Area 117, Michigan 1, Indiana. As has been previously noted, surveying started in the eastern portions of Area 66, Michigan 1, Ohio, in 1815 but was subsequently discontinued during the year. It began once more in the fall of 1816.

In 1817 and 1818 surveys had been completed of parts of Area 66 in eastern Michigan Territory, and public lands were offered for sale. On March 31, 1818, by presidential proclamation, 349,500 acres in what is now Wayne and Monroe Counties, Michigan, were proclaimed for sale on the first Monday in July, 1818, at Detroit. By the same proclamation, 1,014,800 acres of additional public lands in Area 66 in what is now Oakland, Lapeer, Macomb, and St. Clair Counties, Michigan, were offered for sale in September and November of 1818.²⁰⁴ In March of 1820, 755,200 acres more land in Area 66 were proclaimed for sale in what is now Monroe, Wayne, Lenawee, and Washtenaw Counties, Michigan, as of July, 1820.²⁰⁵ In September, 1820, an additional 184,800 acres in the southern portion of the same counties were proclaimed for sale as of the following November.²⁰⁶

²⁰⁴Carter, op. cit., Vol. X, p. 739.

²⁰⁵Ibid., Vol. XI, p. 18.

²⁰⁶Ibid., p. 59.

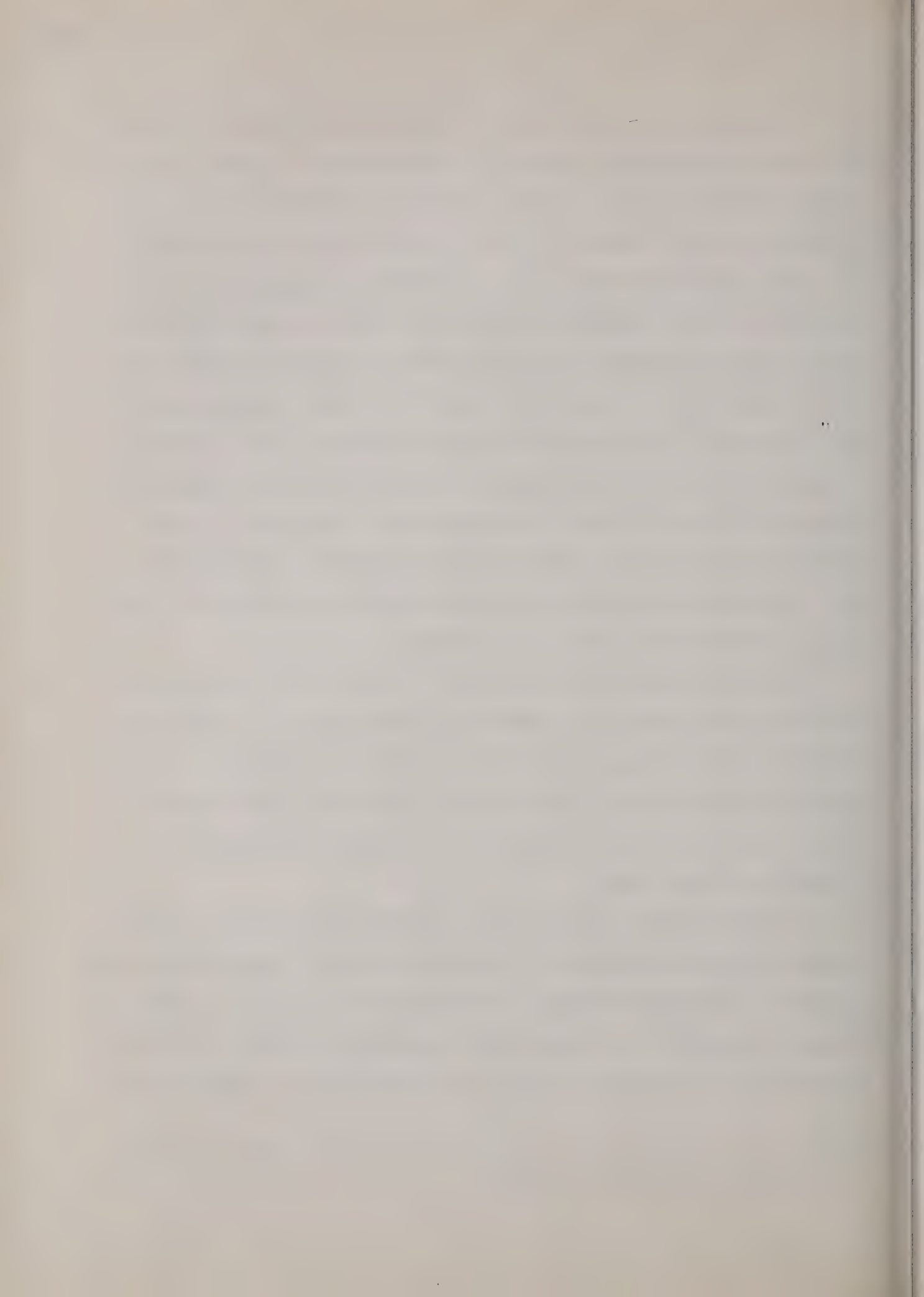
The presidential proclamations offering the lands for sale in Michigan Territory in September and November, 1818, listed them as follows: "for the lands contained in ranges 9, 10, 11 & 12 north of the base line" and "for the land contained in ranges 13, 14, 15, 16 & 17, North of the base line."

This would indicate that from 15 to 18 tiers of townships were offered for sale at the time. However, in checking further the appraiser has found that subsequent proclamations in 1824 and 1825 also offered lands for sale in townships 7 and 8 in ranges 9 to 17 east.²⁰⁷ Further checking against a map of the Detroit Land Office and lands offered there for sale from 1816 to December 31, 1822, indicates that as of December 31, 1822, no lands north of township 6 or east of and including range 9 had been offered for sale prior to December 31, 1822. See map, Plate 9, page 212. The areas that were offered in 1818 and 1820 and the dates they became available for sale are also shown on the map, Plate 10, page 213.

The appraiser examined microfilm copies of the original tract books in the Office of the Bureau of Land Management, Washington, D. C., which contain the records of all original sales. Each sale from 1818 through 1821 was extracted and these sales are shown on Table 7, page 214. This tabulation shows the number of acres sold in each year by township within the areas offered at different times.

In order that these sales of public land might prove useful as guides to what a prospective purchaser of subject lands in 1822 would have discovered relative to prior demand for lands in Michigan Territory, it was necessary to make a comparison of the actual sales as against the amount of land that had previously been offered for sale and was available at the minimum price

²⁰⁷Ibid., pp. 505-507 and p. 675.



of \$1.25 per acre. For each tract that was offered, the percentage of land sold in the period 1818 through 1821 is shown on Table 7. These figures are summarized as follows:

Sales period (four years)	1818-1821, inclusive
Public lands offered for sale.	2,304,300 acres
Acres sold of offered lands.	71,997
Number of sales.	416
Average size of tract sold	173 acres
Approximate annual rate of disposal.	18,000 acres
Acres unsold which were available as of January 1, 1822, for private entry at \$1.25 per acre	2,232,300 acres

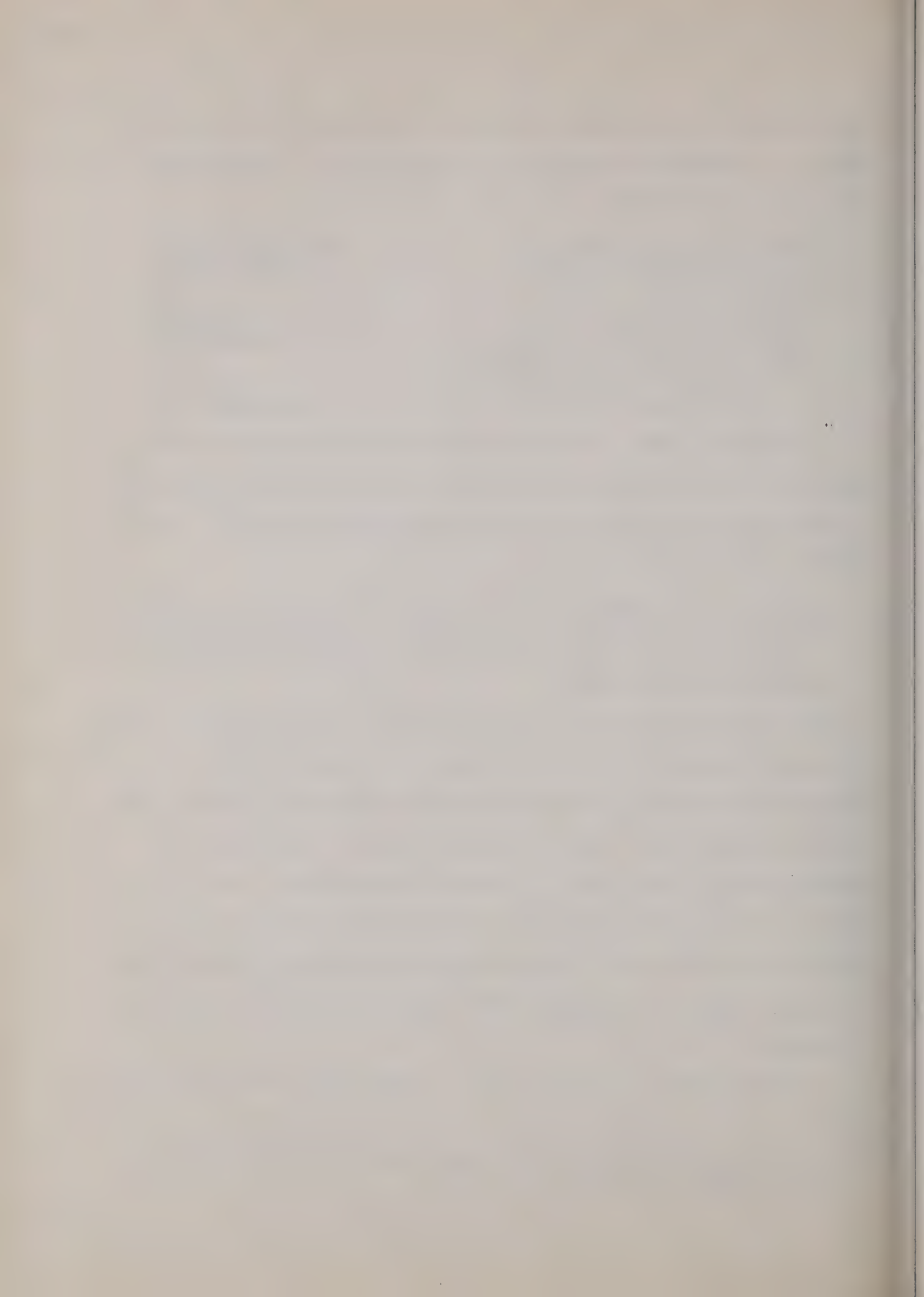
On March 15, 1822, the Treasury Department transmitted to the House of Representatives, 17th Congress, First Session, House Document No. 355, entitled "Number of Land Offices and the Annual Expense of Each."²⁰⁸ Table A of this document contains the:

Estimate of the quantity of land in each land district of the United States; the quantity surveyed; the amount of reservations and private claims; the amount of sales from the first operations of the land offices to the 1st October, 1821; and the quantity of land remaining unsold at the same period.

In this table the report gives the amount of public land surveyed and offered for sale in Michigan Territory as of October, 1821, as 2,396,160 acres. Considering the difficulty in estimating partial or fractional townships, and also the uncertainties of the boundaries of the areas at that time, it appears that the lesser figure of 2,304,300 shown on Table 7, page 214, of this report, and those of 2,396,160 acres officially reported on March 15, 1822, are so close together that the appraiser's estimate of 2,304,300 acres as offered lands may be considered sufficiently accurate for the purpose of comparison.

The lands offered and sold for the 1818-1821 period were all located in

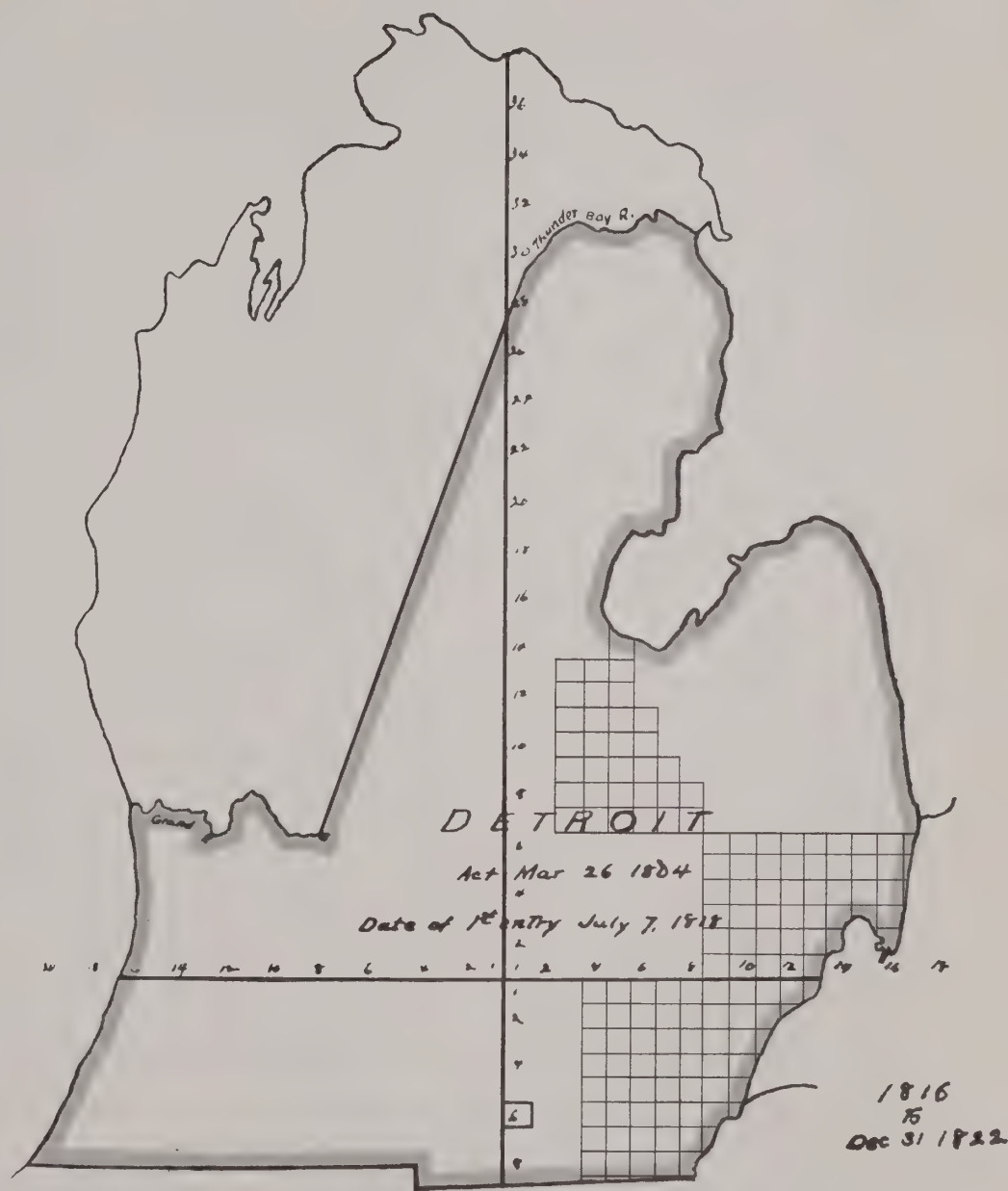
²⁰⁸American State Papers, Public Lands, Class XIII, Vol. 3, Document No. 355, p. 532.



MICHIGAN

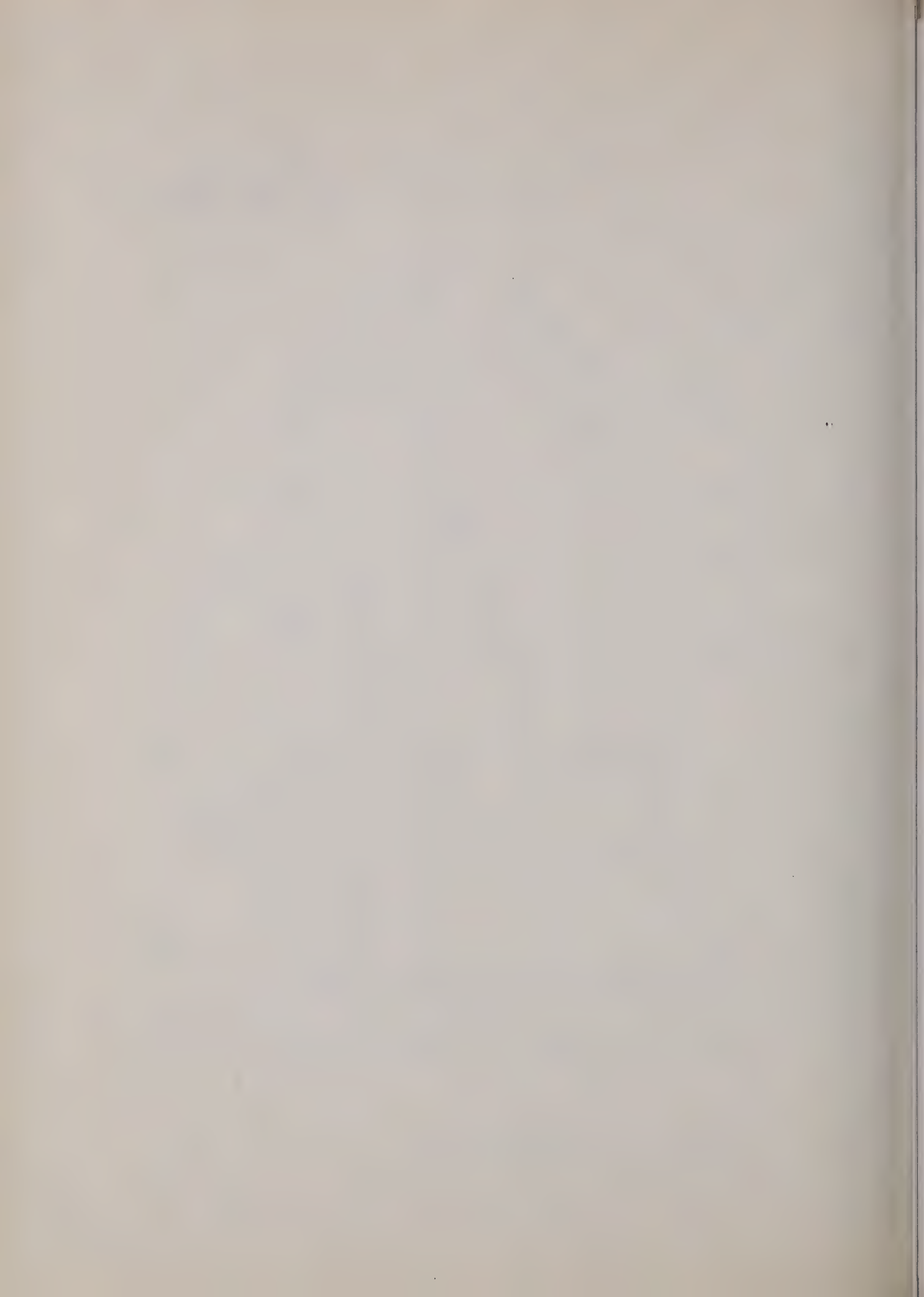
1804 to 1823

Created a Territory
Act Jan 11, 1805
Admitted a State Act Jan. 26, 1820

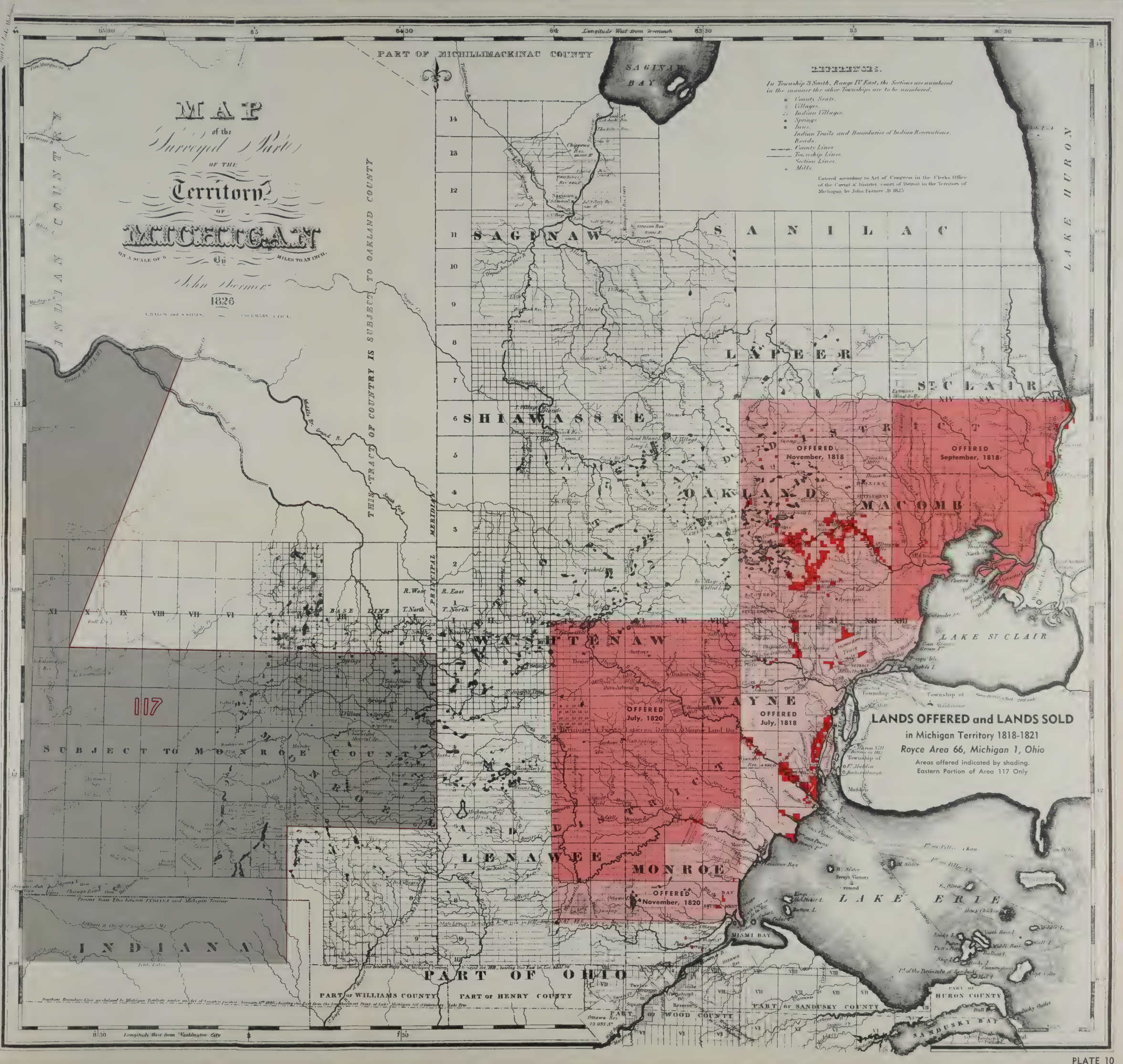


LANDS OFFERED FROM DETROIT LAND OFFICE 1818-1822

From files of Bureau of Land Management,
Department of the Interior, Washington, D. C.







MAP
of the
Surveyed Parts
OF THE
Territory
OF
MICHIGAN
ON A SCALE OF 6
MILES TO AN INCH.
John Farmer
1826
A. BACCH AND SONS, NEW YORK. J. CROWDER, LITHO.

EXPLANATIONS.
In Township 3 South, Range IV East, the Sections are numbered
in the manner the other Townships are to be numbered.
• County Seats.
• Villages.
• Indian Villages.
• Springs.
• Towns.
• Indian Trails and Boundaries of Indian Reservations.
• Roads.
--- County Lines.
--- Township Lines.
--- Section Lines.
+ Mills.

Entered according to Act of Congress in the Clerk's Office
of the Circuit & District Court of District in the Territory of
Michigan by John Farmer, 1825

LANDS OFFERED and LANDS SOLD
in Michigan Territory 1818-1821
Royce Area 66, Michigan 1, Ohio
Areas offered indicated by shading.
Eastern Portion of Area 117 Only



TABLE 7

LAND SALES IN MICHIGAN - 1818 THROUGH 1821

(Taken From Microfilm of the Original Tract Books)

Offerings	Twp.	Range	1818		1819		1820		1821		Totals		Total Acres Offered	Per Cent of Offerings Sold
			No. of Sales	Acreage Sold	No. of Sales	Acreage Sold	No. of Sales	Acreage Sold	No. of Sales	Acreage Sold	No. of Sales	Acreage Sold		
<u>July, 1818</u> - Parts of Wayne and Monroe Counties; 349,500 acres offered	2S	9E	1	160	5	806	1	160	..	..	7	1,126		
	3S	9E	1	1	..	..	..	..	..	..	1	1		
	4S	9E	10	993	..	..	..	90	..	..	11	1,083		
	1S	10E	21	3,353	..	..	1	80	..	..	22	3,433		
	2S	10E	10	2,119	4	994	5	400	1	80	20	3,593		
	4S	10E	15	3,339	2	320	..	..	..	..	17	3,659		
	5S	10E	23	5,610	4	1,173	2	320	1	80	30	7,183		
	6S	10E	5	1,197	2	660	..	..	..	..	7	1,857		
	1S	11E	8	1,655	..	..	..	..	1	80	9	1,735		
	2S	11E	4	81	2	465	3	320	..	..	9	866		
	3S	11E	9	2,266	..	..	..	..	..	..	9	2,266		
	4S	11E	12	2,756	..	..	..	..	..	..	12	2,756		
	1S	12E	5	439	..	..	..	..	..	..	5	439		
	1S	13E	3	155	..	..	..	..	..	..	3	155		
Total			127	24,124	19	4,418	13	1,370	3	240	162	30,152	349,500	8.6%
<u>September, 1818</u> - Parts of St. Clair and Macomb Counties; 448,400 acres offered	1N	13E	2	66	..	..	..	..	..	..	2	66		
	2N	13E	3	291	..	..	..	..	..	..	3	291		
	3N	13E	1	160	2	320	..	..	1	80	4	560		
	4N	16E	4	888	..	..	1	320	..	..	5	1,208		
	4N	17E	7	1,378	..	..	..	..	..	..	7	1,378		
	5N	17E	5	1,155	..	..	..	..	..	..	5	1,155		
	6N	17E	9	1,153	..	..	..	..	..	..	9	1,153		
Total			31	5,091	2	320	1	320	1	80	35	5,811	448,400	1.3%
<u>November, 1818</u> - Parts of Lapeer, Oakland and Macomb Counties; 566,400 acres offered	2N	9E	..	..	1	366	..	..	..	..	1	366		
	3N	9E	..	..	6	1,110	..	..	..	..	6	1,110		
	4N	9E	1	480	..	..	..	..	..	..	1	480		
	5N	9E	..	..	2	320	..	..	..	..	2	320		
	1N	10E	5	800	4	665	..	..	..	..	9	1,465		
	2N	10E	18	3,319	10	2,086	7	1,118	3	400	38	6,923		
	3N	10E	17	3,360	4	640	6	880	9	880	36	5,760		
	4N	10E	..	..	1	160	..	..	..	..	1	160		
	6N	10E	..	..	1	160	1	160	..	..	2	320		
	1N	11E	..	..	2	484	..	..	..	..	2	484		
	2N	11E	3	478	5	848	8	1,120	11	1,010	27	3,456		
	3N	11E	18	3,216	27	4,656	..	..	2	160	47	8,032		
	6N	11E	..	..	1	40	..	..	..	..	1	40		
	2N	12E	11	1,705	..	..	..	..	..	..	11	1,705		
	3N	12E	11	2,301	5	1,705	..	..	..	..	16	4,006		
	5N	12E	..	..	..	..	..	..	1	80	1	80		
	6N	12E	1	80	..	..	..	..	..	..	1	80		
Total			85	15,739	69	13,240	22	3,278	26	2,530	202	34,787	566,400	6.14%
<u>July, 1820</u> - Parts of Washenaw, Monroe, Lenawee, and Wayne Counties; 755,200 acres offered	6S	7E	..	..	..	..	2	80	4	380	6	460		
Total			..	..	..	..	2	80	4	380	6	460	755,200	0.06%
<u>November, 1820</u> - Parts of Monroe and Lenawee Counties; 184,800 acres offered	8S	8E	..	..	..	..	5	400	2	160	7	560		
	7S	8E	..	..	..	..	1	87	3	140	4	227		
Total			..	..	..	..	6	487	5	300	11	787	184,800	0.43%
Totals (Acreage offered - approximately 2,304,300)			243	44,954	90	17,978	44	5,535	39	3,530	416	71,997	2,304,300	3.125%

Average Annual Rate of Disposal, 1818 - 1821 18,000 acres

Average Size of Tract Sold (71,997 divided by 416) 173 acres

Acres Available at Private Entry at \$1.25 per Acre (2,304,300 less 71,997) 2,232,300

Note: Each of these sales was within the boundaries of Area 66 which is adjacent to Area 117.

the more desirable eastern and southeastern portions of Michigan Territory. The sales prior to 1820 were in accordance with the Acts of May 18, 1796, 1 Stat. 64, and May 10, 1800, 2 Stat. 73, both of which provided a minimum sale price of \$2.00 per acre. By the 1800 Act a minimum credit price was fixed at \$2.00 per acre, and with discounts for cash, the minimum cash price was equivalent to \$1.64 per acre. In examining each transaction, the appraiser has found that the number of sales above the minimum credit price of \$2.00 per acre under the 1800 credit act was relatively small.

The sales made in Michigan Territory after 1820 as listed in Table 7, page 214, were in accordance with the Act of April 24, 1820, 3 Stat. 566, fixing the minimum cash price of \$1.25 per acre, with practically no sales above this price.

On the map, Plate 10, page 213, in addition to outlining the areas which were offered for sale at the various dates, the sales during the period 1818-1821, inclusive, are shown located by quarter section according to the approximate acreage of each parcel sold. This map illustrates very clearly several significant facts: (1) A most significant factor, and it is clearly shown, is the way that practically all of the sales are clustered along the streams. This points up unequivocally the importance of rivers and streams as arteries of travel. (2) It is obvious that settlers tended to stay close together, and there are few sales that are separated from the settled areas. (3) Only a relatively small percentage of Area 66 had been surveyed and offered for sale as of January 1, 1822. (4) The map also discloses the vast amounts of land unsurveyed, and therefore unoffered for sale, as well as the distances between the surveyed portions of Area 66 and the eastern boundary line of Area 117. While not computed in miles, it also points out clearly the even greater distance that lay between Area 117 and

the sparsely settled areas around Detroit and Lake Erie. (5) Most important of all, this map illustrates graphically the very small amount of land that had been sold with respect to the percentages of both offered and un-offered lands for sale in Area 66.

Study of the general settlement pattern over the previous 30 years of lands in the Public Domain reveals that there was a very strong tendency for immigrants to remain close to each other, and the greatest number of sales in Area 66 followed this pattern and were fairly closely grouped in the different areas of settlement. The general settlement pattern referred to above also indicated that, as settlement and sales increased, the wilderness was gradually pushed back, roads of a sort developed, and the amount of land more attractive to prospective purchasers increased. Examination of the map, Plate 10, shows quite clearly that it could be quite a while at the growth rate of the past for the settled areas to reach out to the west and tend to push the frontier back, creating in the western part of Area 66 and in Area 117 lands close enough to settlement and some sort of roads to attract any but the most venturesome of immigrants.

All of Area 66 had been cleared of the claims of Indian title by the Treaty of November 17, 1807, some 15 years prior to March 25, 1822. On January 1, 1822, the 2,232,300 acres offered and still unsold within this tract were subject to private entry at \$1.25 per acre and would have offered strong competition to the resale of the subject lands after March 25, 1822. Within the ten townships in which more than 2,000 acres had been sold, seven were described in the surveyors' notes as having first-class soils. The other three townships, all in Oakland County, including the township in which the largest acreage had been sold, were shown in the surveyors' notes as being poor land with very little mention being made even of second-class soils.

However, it is to be noted that the Clinton River flows through these townships in Oakland County described in the field notes of survey as having poor land, and the sales in Oakland County were grouped along the river. This indicates clearly that often adequate transportation was much more important to the early settler than was the fertility of the soils.

Before reaching final conclusions as to sales in Area 117, consideration would have been given to future settlement in Michigan Territory within Area 66 as settlement increased within the areas surveyed, offered, and available as of March 25, 1822. It would have been obvious to any prospective purchaser of subject tract in 1822 that before it became attractive to settlers that a substantial portion of all the land from Area 117 east to Lake Erie and the Detroit River would have to be partially settled. Thus, in addition to the areas offered for sale in July and November of 1820, the area west of these tracts extending to Area 117 would have to be surveyed, offered, and partially settled. This area, consisting of parts of Washtenaw, Jackson, Lenawee, and Hillsdale Counties, consisted of 32 townships, or approximately 755,000 acres. On Table 7, page 214, the area of lands offered in 1820 is given as 940,000 acres. Thus there would be in the neighborhood of 1,700,000 acres of land east of Area 117 that would have to be partially settled before there would be appreciable interest in the purchase of lands in Area 117 by prospective settlers. During the time that this portion of Area 66 was being settled, there would also be further settlement north of this section closer to the Detroit River and Lake St. Clair. However, it is the portion of Area 66 in Jackson and Lenawee Counties that would be of most concern to prospective purchasers of Area 117 as a unit in 1822, and the purchasers would take into consideration the time required for partial settlement of all the land east of Area 117 in reaching their conclusions as to the holding period before

sales to settlers would begin in Area 117.

Conclusions re Michigan Land Sales

A study of the map, Plate 10, page 213, shows very clearly that there was ample land available for purchase in eastern Michigan Territory. As of 1822 a total of 2,232,300 acres of offered and unsold public lands was available for private entry at the minimum cash price of \$1.25 per acre in 80-acre tracts. The surveyors' notes indicated that there was good land throughout the eastern portion of the territory yet unoffered for sale. The people of Detroit had sponsored great promotion efforts to induce settlers to come to Michigan Territory, but the actual number of sales in the area showed clearly that as of the end of January 1, 1822, there was indeed very small interest in the public lands of Michigan Territory.

If sales in Area 66 were to continue in the future at the same rate, it is obvious that it would have taken a long time to dispose of the unsold acres of offered lands aggregating 2,232,300 acres after January 1, 1822. Besides, there were other hundreds of thousands of acres of unoffered lands in eastern Michigan, which in time would prove to be competitive with the resale of Area 117. On the other hand, the sales pattern in Ohio and Indiana showed that as settlement progressed, sales increased in a rather geometrical progression. Therefore, it could be assumed that in 20 to 25 years a substantial portion of the land in Area 117 would be sold.

Ohio, Indiana, and Illinois

As of March 25, 1822, anyone considering the future of Michigan Territory and the possibilities of the future resale of Area 117 would have studied the development of Ohio and Indiana and the amount of competitive lands still available for sale therein. The general character of land was similar to the

land in southern Michigan, and the sales in Ohio and Indiana proved that settlers wanted this type of land. As of 1822 the principal routes from the east converged and followed the Ohio River. Most settlers seeking lands in the west would pass Ohio and Indiana in order to reach Michigan.

The settlement of Ohio began after the end of the Revolutionary War in 1783. The census figures show no population for Ohio in 1790,²⁰⁹ although it is known that there were people in the territory. In 1800 the population is listed at 45,365; in 1810, 230,760; in 1820, 581,434. By 1800 there was sparse settlement in Indiana. The census figures disclose a population of 2,517. This territory did not grow as rapidly as did Ohio in the next decade but expanded substantially in the succeeding ten years from 24,520 in 1810 to 147,178 in 1820. Illinois had a population of 12,282 in 1810 and 55,211 in 1820. See Table 5, page 115.

From 1795 to 1820 the claims of Indian title had been extinguished to all the State of Ohio except for small reservations throughout the northwest part of the state.²¹⁰ For the same period claims of Indian title had been extinguished to about three-fourths of the State of Indiana consisting of all lands south of the Wabash and Miami Rivers with the exception of a large area in the center of the state adjacent to and south of the Wabash River.²¹¹

The treaties extinguishing these Indian claims are listed on Table 8, page 220. This table shows that approximately 45,600,000 acres of land south and east of Michigan Territory had been cleared of Indian title as of March 25, 1822, including that portion of Ohio adjacent to the southern boundary of

²⁰⁹Twelfth Census, op. cit., p. 3.

²¹⁰Royce, op. cit.

²¹¹Ibid.

TABLE 8

NUMBER OF ACRES OF LAND IN OHIO, INDIANA, AND MICHIGAN TERRITORY
TO WHICH THE INDIAN TITLE HAD BEEN EXTINGUISHED
PRIOR TO MARCH 25, 1822

Date	Place of Treaty	Lands Involved	Royce Areas	Acres
Aug. 3, 1795	Greenville	All southern Ohio and part of Indiana plus 21 small areas comprising outposts	11--Ohio, Ind.	11,808,499
June 7, 1803	Fort Wayne	Indiana; part of Illinois	26--Ind., Ill. 1	2,038,400
Aug. 18 and 27, 1804	Vincennes	Southern Indiana	49--Ind.	1,921,280
July 4, 1805	Fort Industry (Ohio)	North central Ohio on Lake Erie; Connecticut Western Reserve and Firelands	53 and 54--Ohio	1,030,400
Aug. 21, 1805	Grouseland	Indiana	56--Ind.	1,572,480
Nov. 17, 1807	Detroit	Southeastern Michigan and northwestern Ohio	66--Mich 1, Ohio	7,862,400
Sept. 30, 1809	Fort Wayne	Indiana (small section in Illinois)	71, 72, & 73--Ind., Ill. 1	3,257,600
Sept. 29, 1817	Fort of the Rapids of Miami of Lake Erie	Southeastern Michigan; northwestern Ohio; southeastern Indiana	87 and 88--Ohio, Ind., Mich. 1	4,377,600 430,080
Oct. 2 and 3, 1818	St. Mary's of Ohio	Indiana	98--Ill. 1, Ind.	1,109,760
Oct. 6, 1818	St. Mary's of Ohio	Indiana	99--Ohio, Ind.	5,867,520
Sept. 24, 1819	Saginaw	Michigan	111--Mich. 1	4,321,280
Total				45,597,299

Note:

The dates and places of treaty, the lands involved, and area numbers are taken from Royce maps. The acreages are taken from Senate Document No. 323, pp. 461-462. The acres shown are only contemporary estimates and are not necessarily the exact acreages.

Michigan Territory.

House Document No. 355, referred to on page 211, contains various figures on public land sales. Table 9 below contains figures extracted from this document pertaining to the land districts in the adjacent states of Ohio and Indiana.

TABLE 9

SALES AT LAND OFFICES IN OHIO AND INDIANA 1800-1821

Land Offices	Total Acres in each District	Acres Surveyed	Acres Sold to Oct. 1, 1821	Percentage Sold of Surveyed Lands	Est. Acres Remaining Exclusive of Credit Purchases Relinquished
Ohio:					
Marietta	576,000	Whole	179,511		473,289
Ohio Company's Purchase, O.	1,344,160	"	.		.
Zanesville	2,367,360	"	913,915		755,685
Steubenville	1,935,360	"	1,571,691		309,909
Chillicothe	3,109,760	"	1,032,102		1,122,486
Cincinnati	3,709,440	"	2,755,059		850,741
Wooster	1,244,160	"	908,579		301,021
Piqua	2,983,800	"	6,125		2,734,142
Delaware	2,321,280	1,971,840	75,724		1,966,185
Total, Ohio	19,591,320	19,241,880	7,442,706	38.68	8,513,458
Indiana:					
Vincennes	5,450,400	Whole	1,436,497		3,852,503
Jeffersonville	2,856,960	"	1,287,732		1,489,868
Brookville	3,768,960	1,751,040	256,754		3,407,513
Terre Haute	3,600,000	1,290,240	30,977		3,469,023
Total, Ind.	15,676,320	11,348,640	3,011,960	26.54	12,218,907
Grand Total	35,267,640	30,590,520	10,454,666	34.18	20,732,365

Prior to the credit Land Act of May 10, 1800, 2 Stat. 73, sales of the public lands in Ohio were limited as local land offices were not opened until 1800. Thus the sales period in Ohio was from 1800 to 1821, or 21 years. In Indiana the first sale at the Vincennes Land Office was made in 1807, so the public land sales in Indiana covered a period of 14 years prior to October 1, 1821.

Table 9 shows that in Ohio only 38.68% of the public lands offered for sale was sold in the 21-year period. This indicates an average annual rate of only 1.842% per year sold of the area offered for sale. The sales for Indiana were 26.54% of the lands offered for sale over a 14-year period, indicating an average annual sales rate of 1.896% of the amount of public lands offered for sale.

It is impossible for an appraiser today to determine everything that might have been in the minds of informed buyer and seller in 1822. However, informed persons would have had knowledge of the sales in the past as noted herein but also would have had opinions as to the expected pattern of future sales and future attitudes. In accordance with the Act of April 24, 1820, 3 Stat. 566, the sale price of public lands had been reduced from \$2.00 on credit to \$1.25 per acre cost. There had been great discussion in Congress on this subject, and the Act of 1820 did not eliminate the opinion of many that land prices were too high.

Ten years subsequent to the valuation date of March 25, 1822, for Area 117 the pattern of public land sales in the United States previously established during the 1800-1821 and the 1800-1827 periods had not materially changed. In this regard the Senate Committee on Public Lands officially reported on May 18, 1832, as follows:

. . . The State of Ohio contains 26,000,000 acres; of this quantity the United States has sold 7,564,549 acres under the present land system, which is but little more than one-quarter of the State. Her population and improvements, if only counted to the extent of these sales would make but an indifferent figure among the great States of the Union. The truth is, Ohio owes at least two-thirds of her present greatness to settlements on Virginia military bounties, on land sold before the adoption of the present system at the easy rate of sixty-six and two-thirds cents per acre, payable in revolutionary certificates; on the western reserve, sold by Connecticut to individuals at a few cents per acre; on donations to settlers, to Nova Scotia and Canadian refugees, and for schools and other purposes; and on the public lands where a multitude of poor people are seated without titles.

Deduct these settlements, and this flourishing State, instead of ranking third or fourth, would be classed with the ninth or tenth States of this Union. The same result is still more aggravated in the other States. Indiana has a superficies of 22,000,000 acres, of which the federal government has sold 5,817,038 acres; Illinois, 39,000,000, and 2,178,012 acres sold; Missouri, 39,000,000, and 1,955,572 acres sold; Alabama, 32,000,000, and 4,335,471 acres sold; Mississippi, 30,000,000, and 1,596,288 acres sold; Louisiana, 30,000,000, and no more than 344,753 acres sold. . . .²¹²

Relative to the extravagantly high minimum cash price of \$1.25 per acre fixed for public lands under the Act of April 24, 1820, 3 Stat. 566, the House Committee on Public Lands officially reported on December 27, 1833, as follows:

. . . The government of the United States is probably the only vendor, either of land or any other property, that holds the most inferior quality of any article at the same price with the best. . . . Yet there is not greater absurdity in either of these positions than there is in maintaining that land of every quality is worth, or should command the same price.

The experience of the last ten years has demonstrated that lands of the greatest fertility, when sold at auction, will only command a very small fraction above \$1.25 per acre. To prove this it is only necessary to refer to official documents now on the files of the House. It is not probable that more than one-tenth of the public domain is of the first quality; yet we refuse to let the remaining nine-tenths go at any lower price.

By a report (which is hereto attached) made by the Secretary of the Treasury on the 22d of January last, in answer to a

²¹²American State Papers, Public Lands, Vol. VI, pp. 482-483.

resolution of the House, it appears that the quantity of land to which the Indian and foreign titles had then been extinguished was 301,965,600 acres. Of that quantity there had, on the 31st of December, 1831, been offered for sale 130,932,205 acres; and only 26,524,450 acres had then been sold. By the same report the quantity of land subject to private entry, on the same day, (and which, of course, had been offered at public auction and refused at \$1.25 per acre,) was 104,407,755 acres. . . .²¹³

Thus the public lands sold up to December 31, 1831, represented only about 20% of those offered for sale. As to the length of time the 104,407,755 acres of offered and unsold lands had been on the market prior to 1831, this committee in the same report stated as follows:

1. In Ohio, nearly all had been on the market 20 years, mostly from 25 to 30 years.
2. In Indiana, nearly all from 15 to 20 years.
3. In Illinois, nearly all for 15 years and upwards.
4. In Missouri, for an average of 12 years.
5. In Alabama, 12 to 22 years, the average by 15 years.
6. In Mississippi, from 12 to 20 years.
7. In Louisiana, for about 13 years.
8. In Michigan, for about 13 years.

The statements made above indicate that the questions as to the price of land created constant controversy and continued after the valuation date of this appraisal, March 25, 1822. These are facts that informed buyers and sellers would have had knowledge of and would have given consideration to in the purchase of the lands in Area 117.

Conclusions re Sales in Ohio, Indiana, and Illinois

As of March 25, 1822, anyone studying the history of the sale of lands in Ohio and Indiana in order to forecast future sales in Michigan would

²¹³Ibid., pp. 641-642.

have recognized that under the best of circumstances the sale of land was a slow process. While the average rate of disposal of lands in Ohio and Indiana appeared to be about 1.8% per year, it must be recognized that this was an average figure. It reflected the extremely low rate at the beginning of settlement and the low rates caused by cycles of business depression or recession. Careful study of sales showed an increasing percentage as settlement developed. Nevertheless, sales in Ohio amounted to some 7,440,000 acres from the beginning of land sales to October 1, 1821, and in Indiana about 3,011,000 acres from 1807 to 1821.

As of 1822 informed people would have knowledge of these facts as well as other knowledge that is impossible for anyone today to know about. On the other hand, facts subsequent to 1822 have borne out the indications that could be drawn from conditions that existed as of 1821-1822 and previous thereto.

It is obvious that anyone considering future sales of small parcels of land within Area 117 as of March 25, 1822, would have taken note of the record of sales in Ohio and Indiana and anticipated a long period of holding for a substantial part of the land until settlement developed to a point where the general population increase would accelerate the demand for new lands.

In the 21 years from the opening of the first land office in Ohio to October 1, 1821, some 10,454,600 acres had been sold (see Table 9, page 221) in Ohio and Indiana, or an average rate of close to 500,000 acres per year.

Thus in 1822 there would have been reason to believe that in the future as population increased, sales to settlers of land in Michigan Territory would tend to increase, but it could not have been anticipated that such sales would increase to such a point that 75% of Area 117 would have been sold in less than 20 to 25 years.

SECTION VIII

ANALYSIS AND CONCLUSIONS

RESUME OF APPRAISAL FACTORS

The market value of lands is usually defined as the price an informed person, willing and able but not forced to buy, will pay and the price an informed seller, also willing and able but not forced to sell, will accept, assuming that the property has been exposed for sale upon the market for sufficient time to enable potential or prospective purchasers to have become acquainted with all value-influencing features of the property and its availability for purchase.

Market value must be considered from two viewpoints--what the informed and willing buyer will pay for the lands and what the informed seller, who is willing and able but not forced to sell, will accept for the property.

In current appraisal practices there are generally sufficient contemporary comparable sales available so that both buyer and seller usually have a reasonably close estimate of what land values are, and the appraiser likewise has a good idea of what buyers and sellers are thinking based on current sales. Except in unusual cases, it is impractical to assume that an appraiser, a jury, or a court can determine the exact point at which buyer and seller would agree on a price, but it is possible to estimate the upper and lower limits which each should recognize as fair and a sound market value can be estimated within these limits.

In arriving at an estimate of the market value of lands, it is extremely

important that the appraiser consider only those factors which an able and informed buyer and seller would also have considered. Features which reflect the desirability of the lands solely from the viewpoint of either the purchaser or seller, and not to others, must be discarded. There are instances where a buyer wishes to acquire a particular piece of property for his own peculiar purpose and consequently will pay more for it by reason of this fact than that for which similar lands are being sold at the time. Sometimes instances occur where an owner for his own peculiar reasons is anxious to sell, and accordingly disposes of his property at a price below what similar properties have brought in order to make the desired quick sale. An appraiser can generally discern such unusual situations and make proper allowances therefor or otherwise, when necessary, disregard them altogether. In other words, the true test for the market value of a tract of land or a property is what it will bring as a unit at a given time, and market value is not what it might have been worth at another or later time when subsequent events enhancing or detracting from the value of the lands might have intervened. Thus, an appraiser must exercise caution to always base his estimates on what the subject property will bring in cash as a unit when offered for sale on the open market.

Since market value of lands is based upon the highest and best use for which the property is suitable or to which it may be readily adapted within the foreseeable future, this feature must not be ignored in reaching a final estimate of value.

In evaluating the subject lands, all factors either contributing to or detracting from the market value of subject lands have been considered by the appraiser. Among the more important of such factors are the following items, though not necessarily listed in the order of their importance:

1. The task involves the historic evaluation of the market value as a unit on March 25, 1822, of a large tract of land in southwestern Michigan and northeastern Indiana consisting of 4,114,330 acres. In this undertaking the problems encountered are not ordinarily to be found in current land appraisals. This is evidenced by the fact that this appraisal task has consumed a part-time four-year period of research and study by the appraiser.

2. From exhaustive study and research it has become obvious to the appraiser that the only practical use to which this tract could have been reasonably devoted after its acquisition on March 25, 1822, was for subdivision and resale to subsistence farmers in small tracts from 80 to 160 acres in size with occasional larger tracts. While in the South there is a record of relatively large agricultural operations prior to 1822, even there only a few thousand acres were involved. Today there is no single agricultural operation in this country which comprises a tract as large as the 4,114,330 acres of Area 117, so that as of 1822 there would have been no expectancy of large tracts being sold.

3. During the quarter century prior to 1800 there had been land sales or grants in various parts of the country of large tracts ranging from 200,000 acres to several million of acres in size. Each of these were also acquired for subdivision and resale in smaller units. Such projects included the Ohio Company in 1787 and 1788, the Symmes Purchase in Ohio at about the same time, the sale of several large tracts in New York State, inclusive of those by the Holland Land Company in western New York in 1792, and the Connecticut Western Reserve in northern Ohio along the shore of Lake Erie in 1795. See pages 47-57 and Table 1, page 58. These large sales, however, are each too far out of time and place with respect to both the location of the subject lands and valuation date of March 25, 1822, to be of great practical utility to the

appraiser in determining the unitary market value of Area 117. On the other hand prospective buyers would have had knowledge of such sales, and they would influence their thinking as to price. There had been no large land sales in the previous few years to give any indication of value.

4. In the disposal of the Public Domain the United States first offered lands in township-sized units of 23,040 acres, then in sections of 640 acres, next in 320-acre tracts, and finally in tracts of 160 acres. In 1817 they were first offered in limited quantities of 80-acre tracts, and finally in 1820 the minimum size for purchase was reduced to 80 acres at the option of the purchaser and thereafter made available in unlimited quantities. See pages 59 and 61.

5. Sales histories prior to 1822 have revealed that the current demands for land was in small tracts and that as the sizes of the tracts made available for purchase were reduced by Congress, the sales increased accordingly. The record of public land sales under the 1796, 1800, 1804, 1817, and 1820 Acts made this important disclosure. See pages 59-61.

6. No known minerals enhanced the market value of the subject lands in 1822. See page 121.

7. In 1822 there was no established lumber industry in Michigan. The timber species on the subject lands had no market value in 1822. See page 122.

8. Unless there reasonably appeared to be a profit in the transaction, no prospective purchaser would have been willing to acquire the subject lands at any price in 1822. The profit motive, as now, controlled all large business transactions in 1822.

9. In considering the subdivision and resale of the subject lands in small tracts after 1822, as was indicated by its highest and best use, there

would have been many prime factors to consider, such as:

- a. What total amount of money could reasonably have been expected to be realized from such contemplated resales?
- b. How long after 1822 would it have taken to have disposed of the lands for a profit?
- c. What profit would a prospective purchaser reasonably have expected in 1822? What would have been the length of the entire disposal period?
- d. What was the current interest rate on such an investment?
- e. How much profit would a prospective purchaser have expected on such a risky investment as the acquisition of the subject lands in 1822: 10, 15, or 20%?

10. In Table 9 on page 221 the total amount of competitive public lands in Indiana and Ohio to which the Indian title had been extinguished is shown as 35,000,000 acres. Of this amount 30,000,000 acres had been surveyed and offered for sale. As of 1822 there were still in Ohio and Indiana more than 20,000,000 acres surveyed and available in unlimited quantities in 80-acre tracts at the minimum cash price of \$1.25. As of 1822 a total of 12,600,000 acres of land in Michigan and immediately adjacent territory had already been cleared of claims of Indian title (see page 37), of which during the years 1818, 1819, 1820, and 1821 a total of 2,304,300 acres had been offered for sale. Of the offered lands, only 72,000 acres, or 3.125%, or an annual acreage of 18,000 acres had been sold, leaving 2,232,300 acres available for private entry without competition at the minimum price of \$1.25 per acre. See Table 7, page 214. These offered and unsold lands were all located in eastern Michigan nearer to settlements and water transportation than the subject lands.

11. The history of public land sales in Michigan, Ohio, Indiana, and Illinois for the 1820-1822 period has disclosed that the average price of the public lands sold was only a few cents above the minimum cash price of

\$1.25 per acre (see Table 4, page 66), and then only where unusually favorable land amenities existed, such as water transportation, roads, mill sites, nearby settlements, etc. did they sell in excess of this price.

12. There is no indication that the subject lands possessed any of the above amenities, except prospectively limited water transportation. Since the streams serving Area 117 led only into Lake Michigan, it did not materially enhance the value of the subject lands in 1822. Therefore, the average price for which a prospective purchaser of the subject lands might reasonably have expected to dispose of his property at resale would not have exceeded \$1.25 per acre.

13. A disposal resale period of 20 to 25 years after 1822 for the subject lands is indicated from prior public land sales history in Michigan and elsewhere. See page 218.

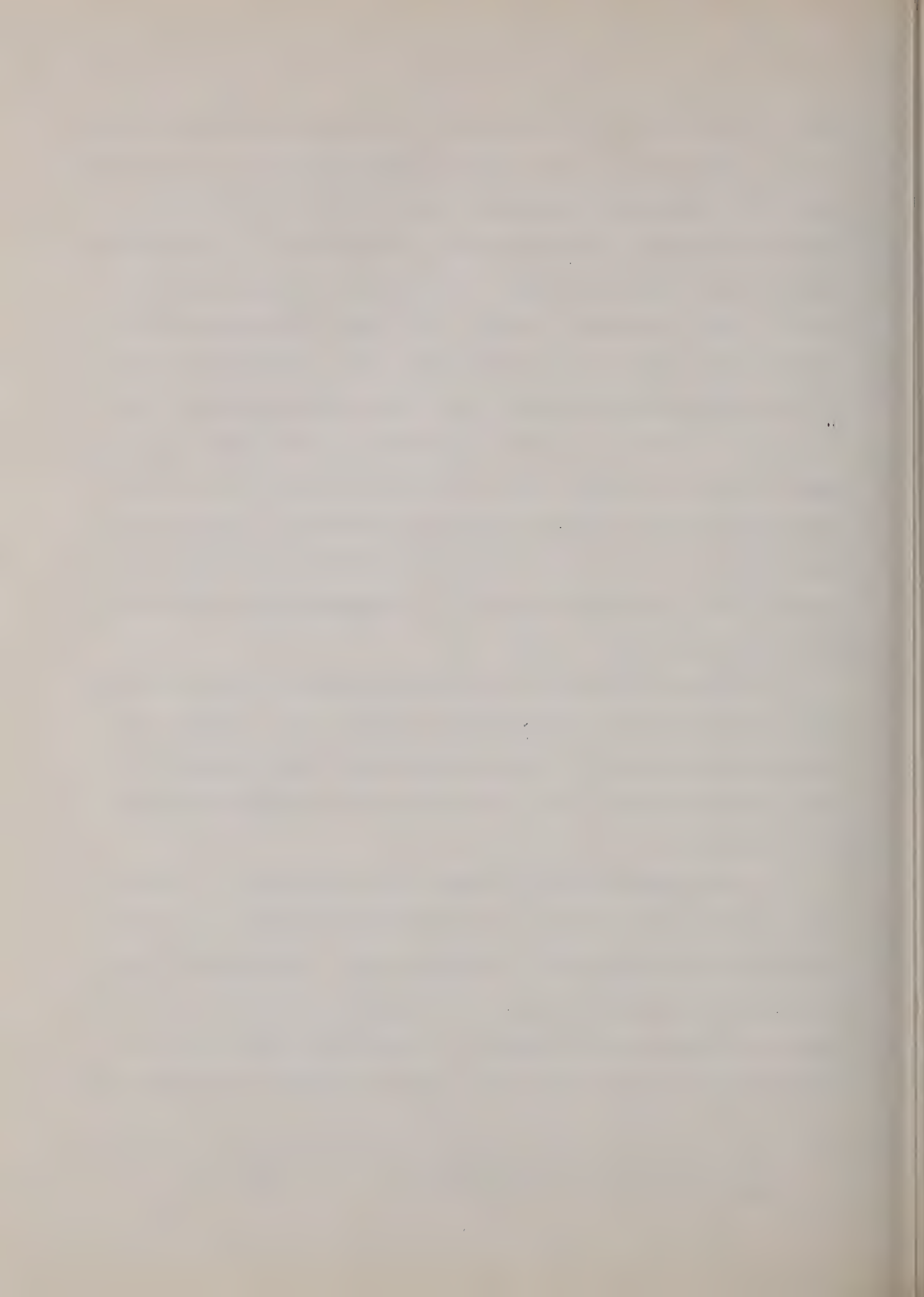
14. The minimum preparation for the resale of the subject lands would have consisted of (a) land offices conveniently located within the tract, (b) advertisements in leading newspapers and periodicals, (c) sales programs, (d) surveying, and (e) the payment of sales commissions to real estate agents engaged in the disposal of the lands. The amount of resale costs are difficult to determine. However, it is believed that certain sound assumptions can be reasonably supported by near contemporary documentary materials relative to the same subject matter; viz., as shown in Senate Document No. 1056, 22nd Congress, 1st Session, dated April 23, 1832, entitled "Statement of the Quantity and Costs of Public Lands of the United States, Receipts from the Sale Thereof and the Objects to which they have been Appropriated." On page 467 of this report the Secretary of the Treasury lists \$3,581,952.44 as "Payments to Surveyors, Commissioners, and other Officers, Employees in the Sale of the Public Domain" from the Declaration of Independence on July 4,

1776, to December 31, 1831. In Schedule A of this same report the Secretary of the Treasury gives the total acreage of public lands involved as 25,242,590 acres. This indicates an average sales cost of 14.2 cents per acre to the United States for public lands during the 1776-1831 period.²¹⁴ Although this report was made subsequent to 1822, the information therein contained up to March 25, 1822, was a matter of public record and was therefore available to a prospective purchaser of the subject lands. At an average price of \$1.25 per acre this estimated sales cost of 14.2 cents per acre amounts to about 12%. In view of current real estate experiences in land disposals, such costs appear extremely low for the resale of the lands in Area 117 when one considers the prospective outlays during the anticipated 20 to 25-year disposal period for (a) taxes, (b) advertising, (c) land offices, (d) sales forces and programs, and (e) sales commissions, etc. The appraiser uses 15 cents per acre as an estimated cost of sales.

15. With the deduction of sale costs of 15 cents per acre, a net resale price of \$1.10 per acre is indicated for the subject lands. Higher prices could have been obtained for resales provided improvements had first been made, such as roads, mills, etc., but these would have added materially to the resale costs.

16. Another fact would have been taken into consideration by a prospective purchaser. Under the Land Ordinance of 1785 one section in each township was dedicated to the support of common schools. By 1822 this donation had become so universal with all new lands opened for settlement that a prospective purchaser would also have been required to have made the same or similar concessions. This school land donation amounted to 2.8% of the subject

²¹⁴American State Papers, Public Lands, Vol. VI, pp. 466-468.



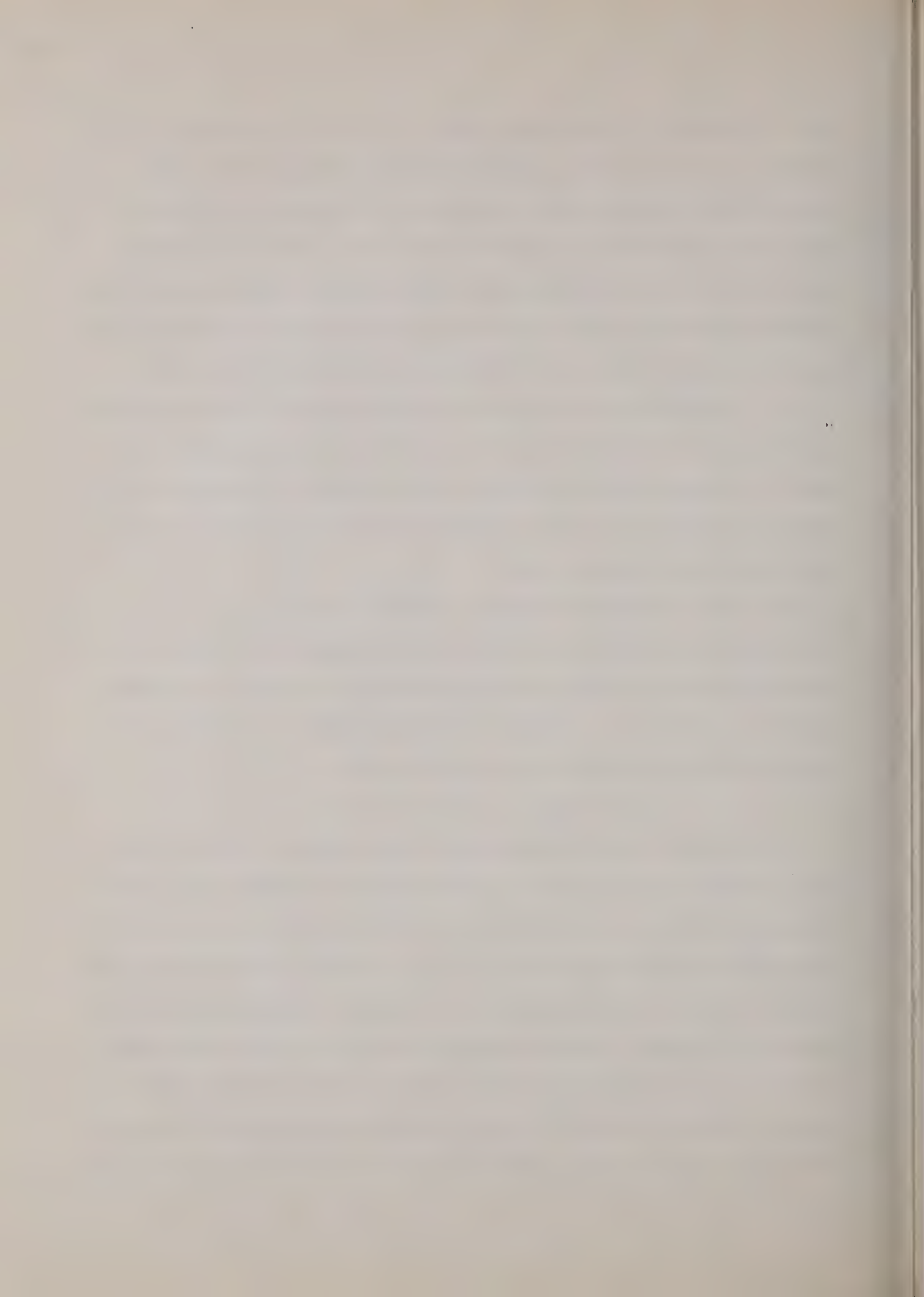
lands. In addition to the school lands, it is possible he would have been required to make additional donations of land for internal developments, such as roads, bridges, canals, townships, court houses, etc. in order to promote the settlement of his newly acquired lands, thereby diminishing to some extent for resale purposes undetermined quantities of the subject lands; but such improvements would have added to the resale value of adjacent lands and would not have been made if they were not economically profitable.

17. The appraiser has concluded that only about 75% of the subject lands would have been resalable during the 20 to 25-year disposal period. See page 148. However, these anticipated land donations for promotional or internal development purposes would not have materially decreased this percentage of anticipated resalable lands.

18. Since a prospective purchaser could not reasonably have been expected to re-sell the 25% of marginal lands within the subject tract during the 20 to 25-year disposal period, he would have based his estimate of the market value of the tract only on the 75% of resalable lands. This would have reduced his net recovery price per acre as follows:

$$75\% \times \$1.10 \text{ --- } \$0.825 \text{ per acre.}$$

19. The next factor for consideration would have been the period of time necessary for the resale of a sufficient portion of the lands to have recovered his initial investment plus the current interest rate and a profit commensurate with the risk involved. This is, indeed, a problem which admittedly invites some speculation because of a dearth of supporting facts relative to its solution. The first thought occurs that no appreciable amount of lands could have been resold within Area 117 until the sales of land in the more favorable portions of eastern Michigan had substantially decreased the supply of more desirable lands available in that favored locality. Also,



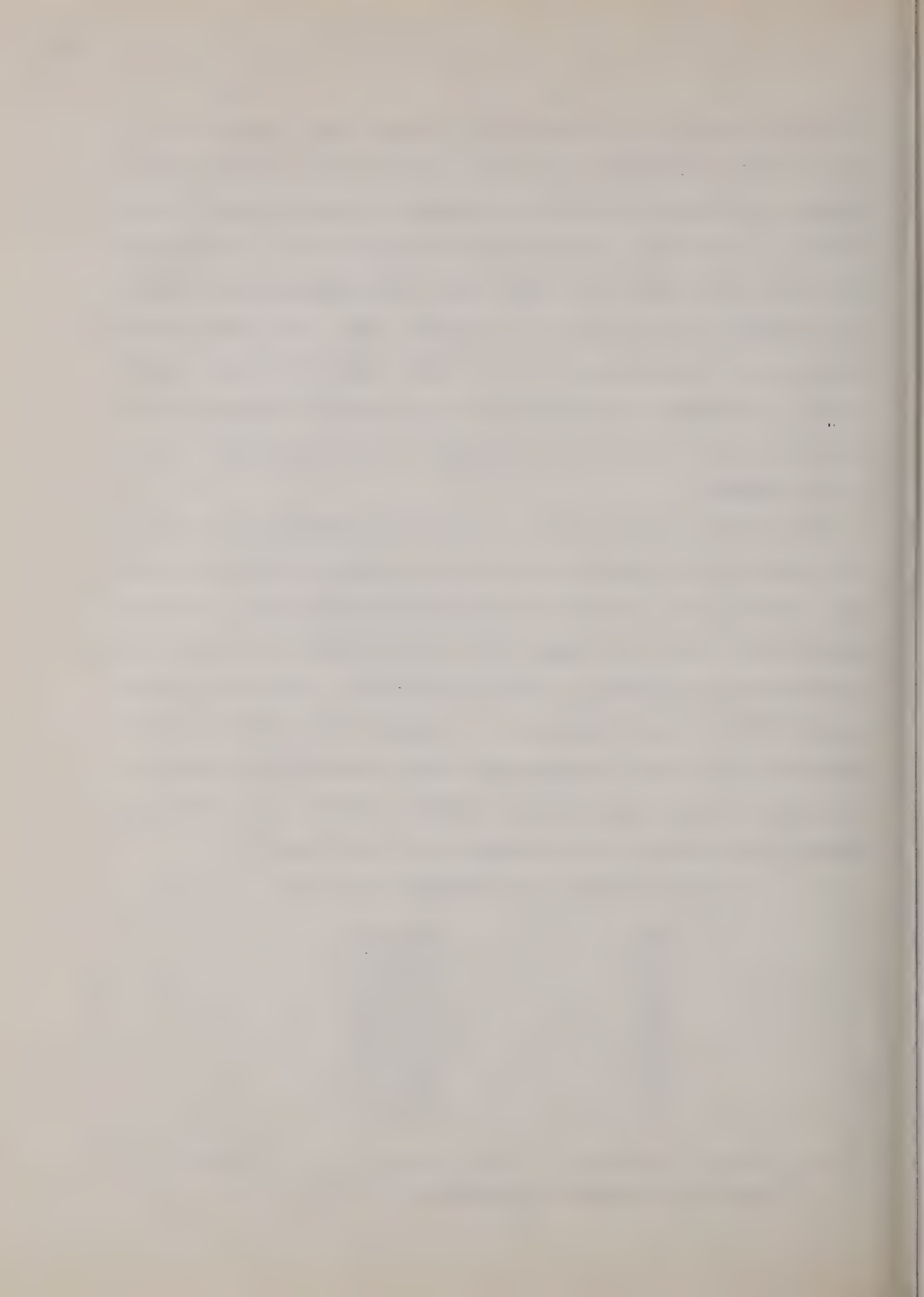
there was a vast quantity of unsold public lands in Ohio, Indiana, and Illinois in 1822 which was more accessible to settlers from the Atlantic Coast, eastern Ohio, Virginia, and Kentucky than were the subject lands. In eastern Michigan near the Lake St. Clair district, the Detroit River, and Lake Erie, there were great quantities of unsold lands which might have been considered more desirable for settlement than the subject lands. Settlements and civilization in one locality promote the development and sale of land in adjacent regions. Therefore, the resale of the subject lands must necessarily have depended to a great extent on the development within the adjacent areas in eastern Michigan.

20. In 1818 a total of 349,500 acres of public lands in eastern Michigan were first offered for sale. In that year the sales were relatively substantial, 24,788 acres out of the 349,500 acres offered being sold. As has been noted by Darby, some of the land sold in 1818 was purchased by local citizens. Sales were less encouraging in 1819, 1820, and 1821. For the full four-year period, 1818-1821, only 72,000 acres, or 3.125%, of the 2,304,300 acres offered were sold. These sales were made during periods of both normal and boom sales of public lands throughout the United States, as disclosed in the Report of the Secretary of the Treasury for the year 1835:²¹⁵

PUBLIC LAND SALES, UNITED STATES, 1814-1822

Year	Acres Sold
1814	864,536.53
1815	1,120,233.64
1816	1,622,830.06
1817	2,159,372.43
1818	2,401,844.60
1819	5,475,648.17
1820	821,904.89
1821	781,213.32
1822	801,226.18

²¹⁵American State Papers, Public Lands, Vol. VIII, p. 2.

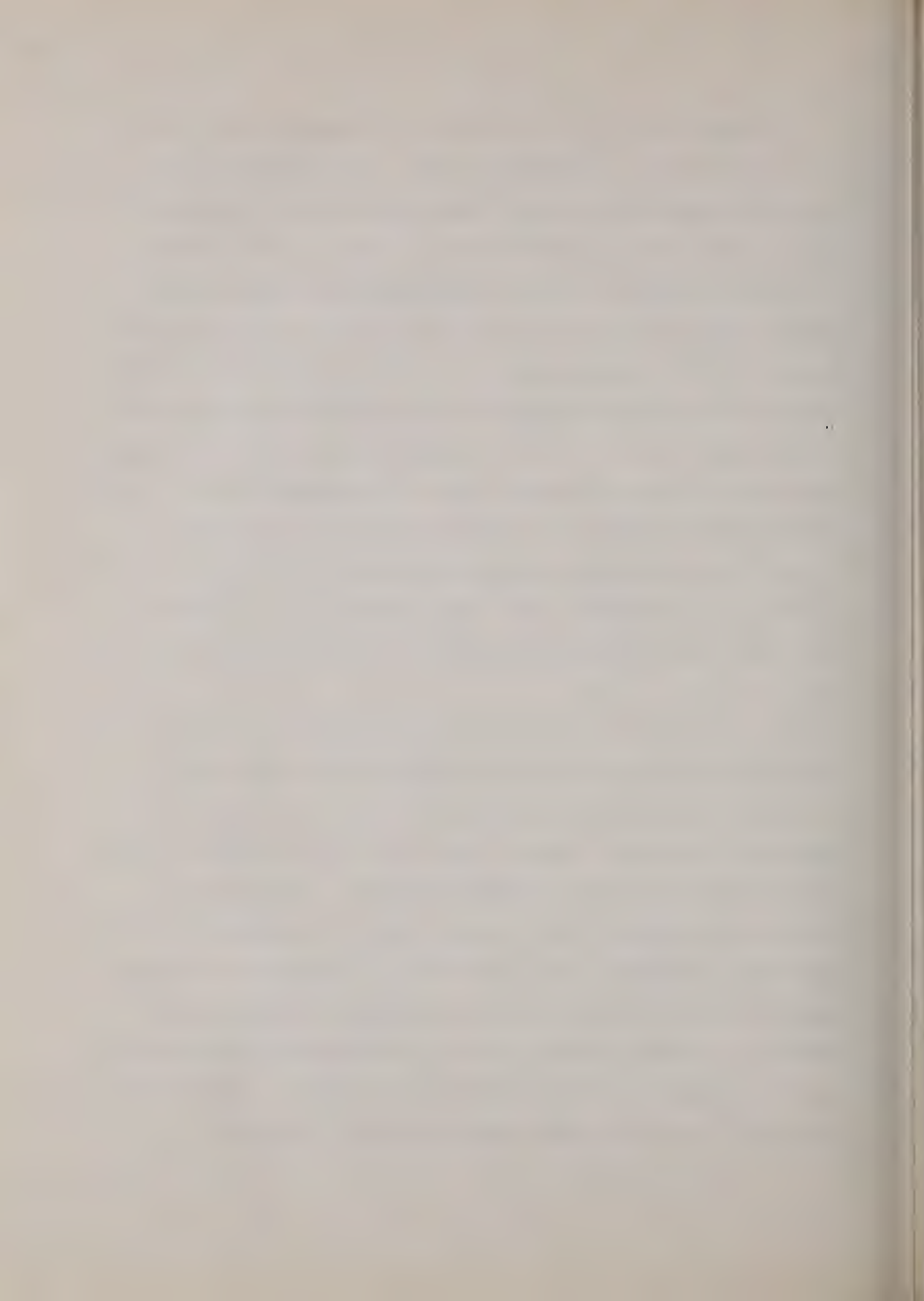


21. Another factor to be considered was the anticipated completion of the Erie Canal in the not-too-distant future. While in 1822 the date of its completion was still uncertain, enough of it had been constructed to present a clear indication for the future as to what it could have meant to the partial solution of the water transportation problems of eastern Michigan. Completion of the Erie Canal would make the shores of Lake Erie accessible by water transportation to the Eastern Seaboard. This would also apply to the Detroit River and Lake St. Clair and ultimately to the shores of Lake Michigan and Area 117. The ultimate prospect of this water transportation would have been an important factor in long-range thinking as to the future potential to subject lands and the market value of Area 117.

22. In 1822 the political status of Michigan was that of a territory. It did not acquire statehood until Congress passed the Act of January 26, 1837, 5 Stat. 444, admitting Michigan Territory into the Federal Union as a state.

23. In 1822 the flow of population and the immigration trends were away from Michigan Territory, down the Ohio River and all its tributaries.

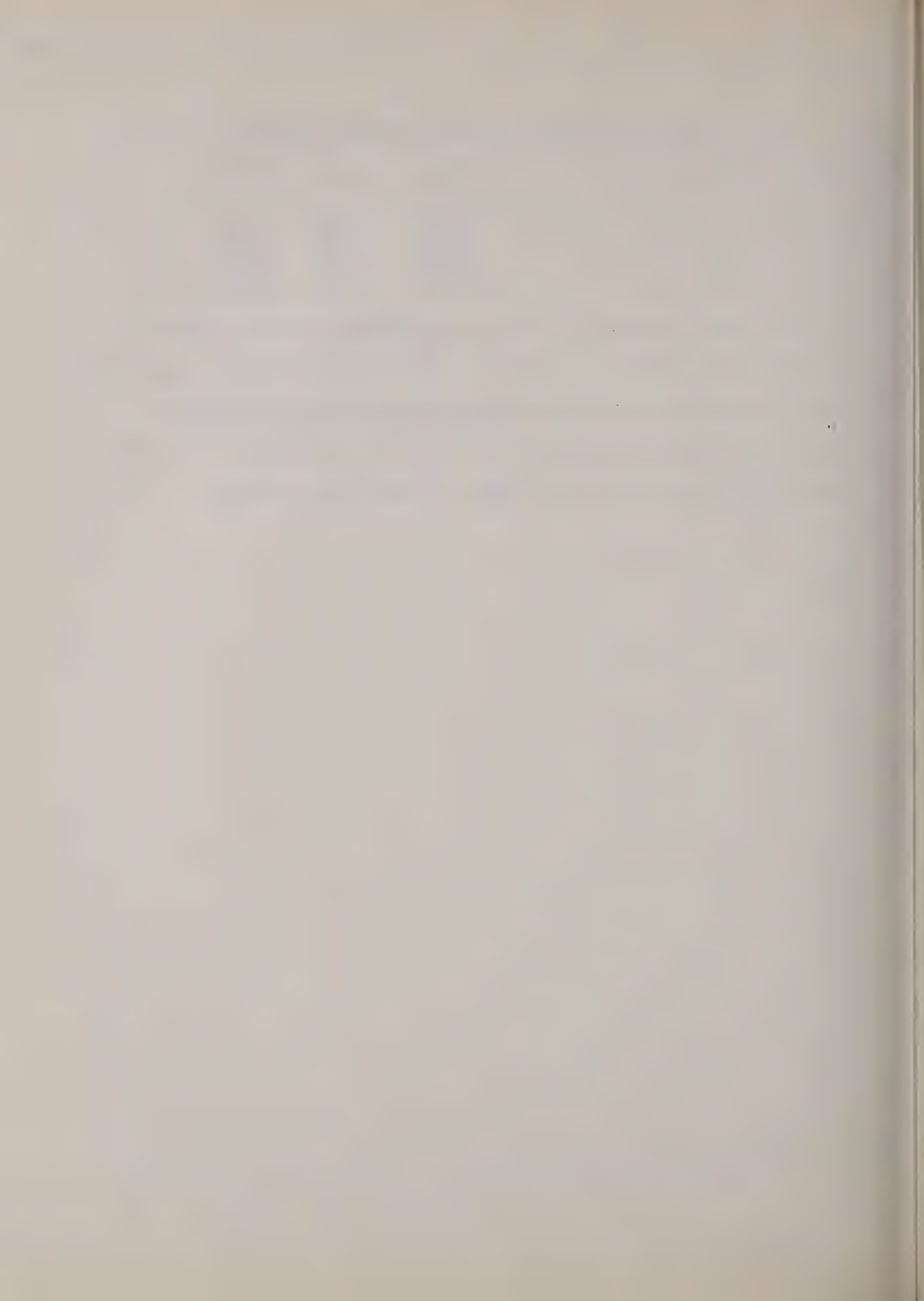
24. On March 25, 1822, the purchase of Area 117 would not have been considered a conservative investment due to all of the hereinbefore enumerated facts and circumstances surrounding the lands. In the chapter on investment opportunities of this valuation report, the appraiser has concluded that an investment of this type would have required an anticipated return of at least 15% per annum, or its equivalent in ultimate profit. Therefore, it becomes important to know how interest would have accumulated upon the investment at current rates during the disposal period of the subject lands. The following table makes this graphic disclosure:



ACCUMULATED AMOUNT OF \$1.00 AT COMPOUND INTEREST

<u>Periods</u>	<u>8%</u>	<u>10%</u>	<u>15%</u>
5 Years	\$1.469	\$ 1.610	\$ 2.011
10 "	2.158	2.593	4.045
15 "	3.172	4.177	8.137
20 "	4.660	6.727	16.366
25 "	6.848	10.834	32.919

The figures represent the value of \$1.00 plus interest compounded annually for the periods indicated at rates of 8%, 10%, and 15%, respectively. These figures were obtained from Mathematical Principles of Finance by Frederick Charles Kent, published by McGraw-Hill Book Company, Inc. in New York in 1927, and actual computations were made by the appraiser.



FINAL SUMMARY AND CONCLUSIONS AS TO MARKET VALUE
OF AREA 117, MICHIGAN 1, INDIANA

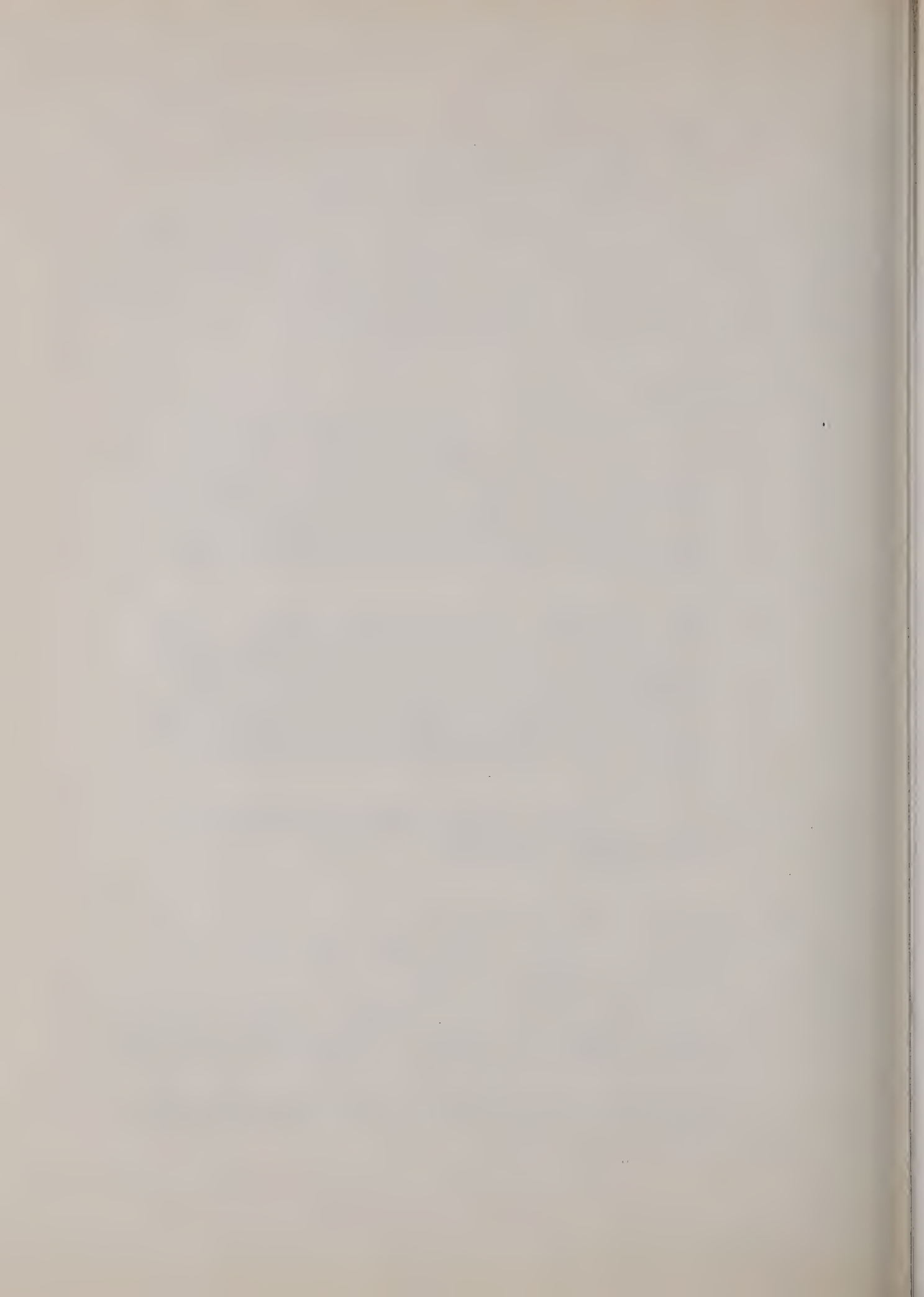
In arriving at a final estimate of value, the appraiser has considered all of the factors which a prospective buyer of Area 117, Michigan 1, Indiana, would have had knowledge of and given consideration to:

I. Characteristics of Area 117.

- A. The area of land herein appraised was 4,114,330 acres.
- B. The land as a whole was fair to good land. There was some first-class land and some marginal land. In general, it was similar in character to land in Ohio and Indiana which had been purchased and settled starting in 1788, so in general it was the type of land that prospective purchasers were seeking if it had been more accessible and nearer settlements in 1822.
- C. There were only trails, no roads, into Area 117. There was access from the settled areas to the east by canoes or light boats up a few rivers, but this method was not adequate for transportation of the settlers' possessions or their produce to market. There were rivers flowing through Area 117 west to Lake Michigan adequate for transportation, but these rivers did not lead to other established means of transportation or to other settlements or markets.
- D. The land was still partially occupied by Indians as of 1822, and they had the right to hunt over any land owned by the Federal Government.

II. Contiguous Territory to Area 117.

- A. Land to the south and north of the western part of Area 117 still was Indian territory.
- B. To the east, northeast, and southeast were Public Domain lands, cleared of the claims of Indian title but unsurveyed and unoccupied, all of which were highly competitive lands.
- C. The settled area of Michigan Territory was 50 to 60 miles east of Area 117, and there were only a few trails leading into the subject lands.

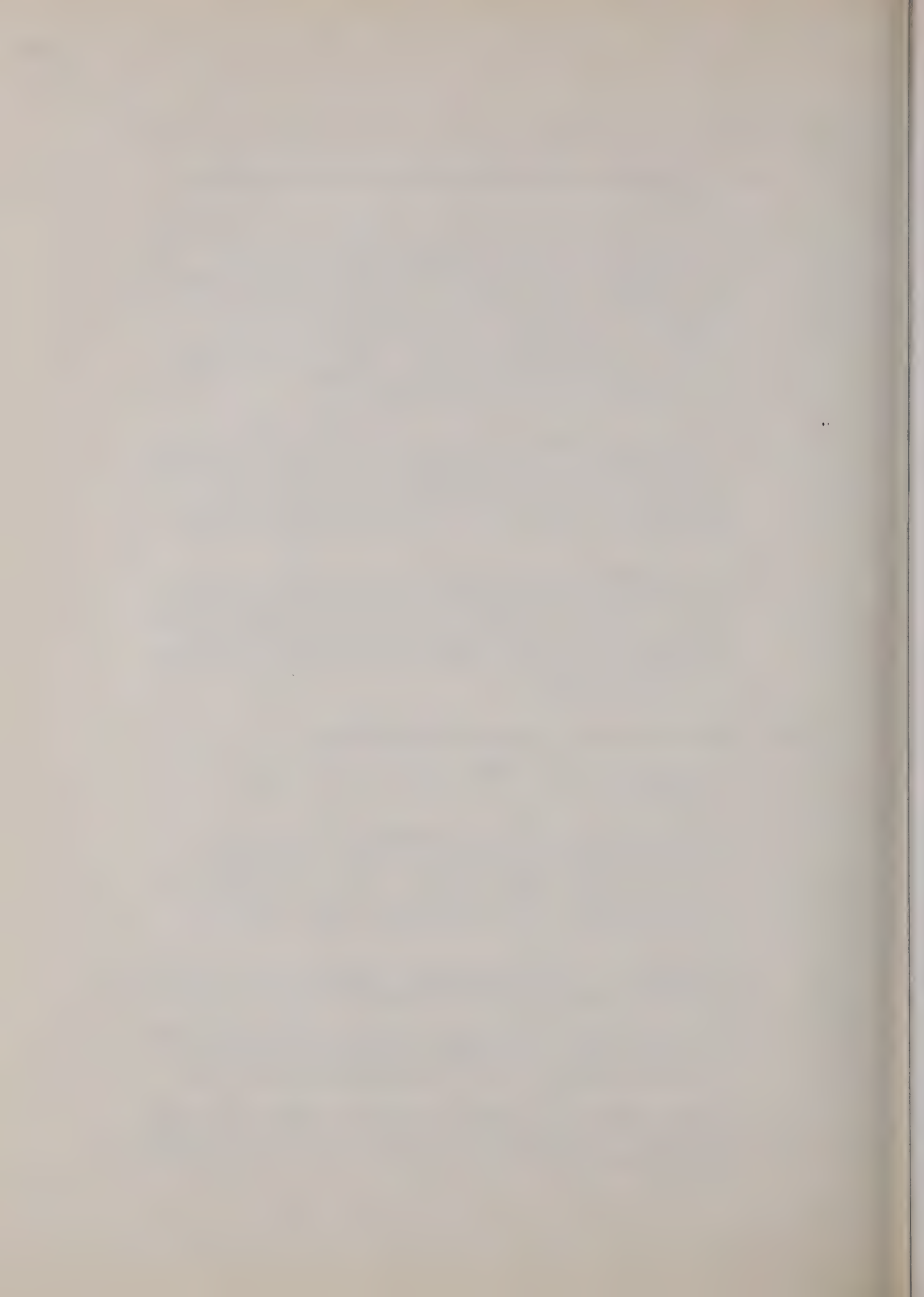


III. Settled Area in the eastern part of Area 66, Michigan 1, Ohio.

- A. In general the land in the settled area was similar to Area 117.
- B. Detroit had been a settlement, trading post, or fort for more than 100 years but was still a small community. It had developed practically no industry or commerce, and the principal export was furs. It was still unable to supply its own needs of food, clothing, and supplies. While the land had been cleared of Indian title since 1807, or 15 years as of 1822, no lands had been surveyed and offered for sale until 1818, and sales of land since that time had been relatively meager.
- C. There was no adequate means of transportation between the settled portion of Michigan Territory and the rest of the country. There was no adequate overland road to Ohio, and while Lake Erie formed a good means of water travel to Buffalo, the overland route from the east was long and arduous.
- D. Much progress had been made on the construction of the Erie Canal, and it had already demonstrated how ultimately it would provide a means of travel to the Eastern Seaboard superior to anything enjoyed by other parts of the west, and there was reason to assume that it would be completed in the near future.

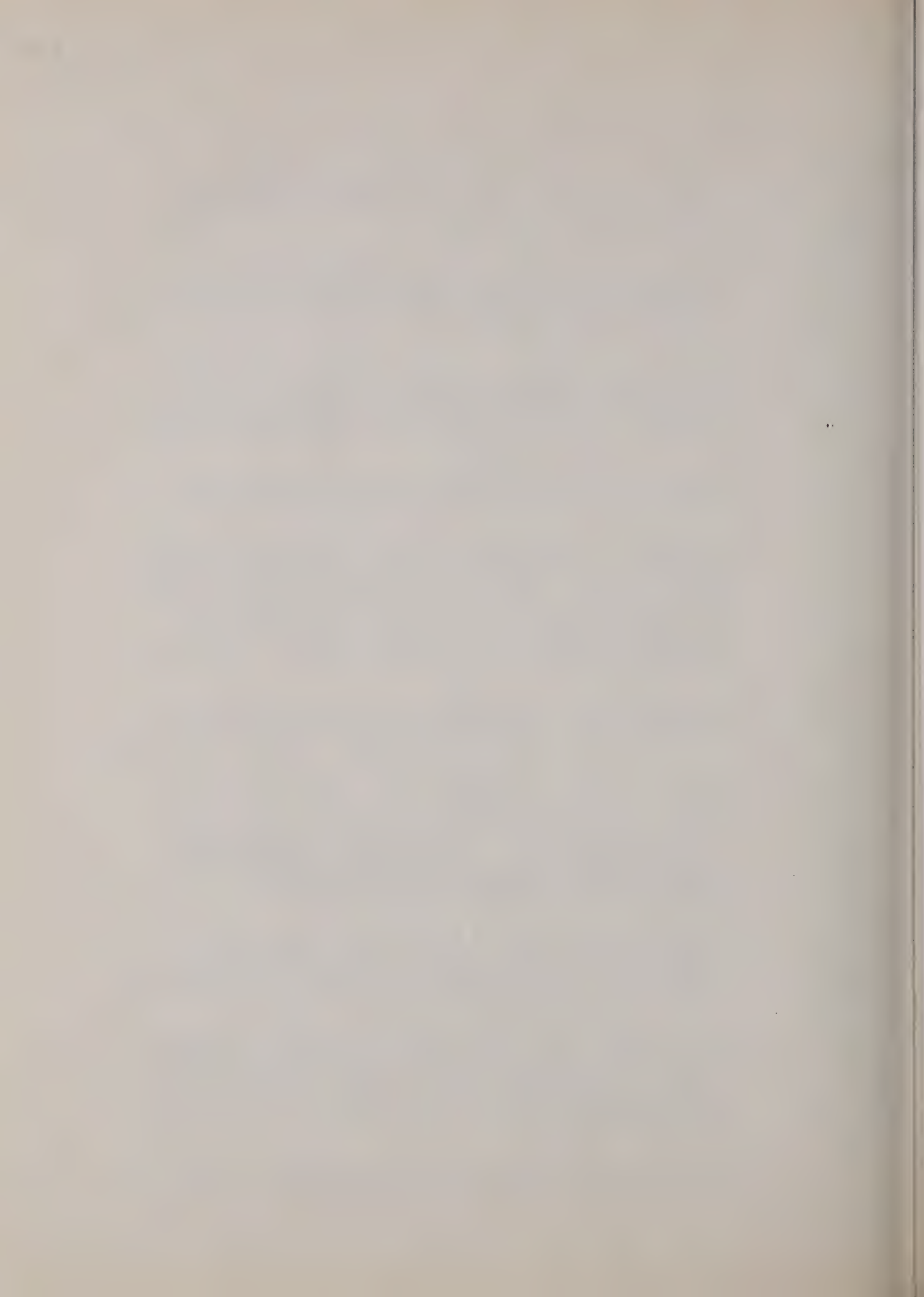
IV. Contemporary Attitude towards Michigan Lands.

- A. Initially reports of Michigan Territory were extremely unfavorable.
- B. By 1822 there was definite knowledge of good land in Michigan Territory and some 2,304,300 acres had been surveyed and proclaimed for sale. At this time there was no authoritative information as to land in Area 117 except observations by a few travellers over the Chicago Trail.
- C. From sales of land and population figures, there was little interest in settlement of Michigan Territory as of 1822.
- D. There were people in Michigan who were enthusiastic about the territory who tried hard to encourage immigration, but their efforts up to 1821-1822 had been ineffective.
- E. Public land sales in the United States, except in Michigan Territory, boomed during the entire 1815-1819 period, falling off only in 1820. Sales again became normal in 1820 and 1821.



V. Potential Sales and Recovery of Investment.

- A. In view of the limited number of sales in Michigan Territory prior to 1822, there was no indication that sales could be expected to commence in Area 117 sooner than five years at the very best.
- B. Based on sales in areas other than Michigan Territory, such as Ohio and Indiana, a period of 20 to 25 years could be anticipated before 75% of the salable lands in Area 117 would be resold.
- C. In 1822, with millions of acres of land available in the Public Domain at \$1.25 per acre, it could not be anticipated that there would be any appreciable sales at higher than \$1.25 per acre in Area 117 during the holding period of 20 to 25 years after 1822.
- D. There would be costs involved in reselling lands which would be deducted from the gross resale price of the lands.
- E. There was by a conservative estimate about 25% of marginal or undesirable land that could not be sold within the foreseeable future. There would be no way of telling in 1822 what the ultimate pattern would be to give value, if any, to these marginal lands. Therefore, they could not be reasonably considered as a definite source of resales for a period of 25 years or longer.
- F. Money invested in the purchase of Area 117 would not receive any return for several years, and at first only a limited return, until land sales and settlement had progressed.
- G. There were other places where money could be invested and receive an early or immediate return, and if these funds were invested in Area 117 lands, possible returns would be lost until sales began. Or, from another approach, the return which might have been obtained but was not, would be added to the original investment each year.
- H. Unless the possibility of an ultimate recovery of the investment from the sale of small tracts would equal or be better than the amount of interest and anticipated profit from other available sources of investment, there would be no inducement to purchase Area 117 for resale.
- I. There appeared to be other conservative sources of investment that had possibilities of a return of 6 to 8% with safety, so the returns required based on the hazards and risks of future resales of land in Area 117 would be substantially higher.
- J. There have always been people who were willing to risk their money in exchange for the possibilities of substantial



profits, but the price originally paid was small compared to the potential profits where there was risk or uncertainty as with the case of the subject lands.

In summary, the land itself was suitable for resale to settlers in small tracts and was similar in character to lands that had been purchased and settled by immigrants to Ohio and Indiana for 30 years.

On the other hand, land in Michigan had been cleared of Indian title for 15 years since 1807 but not surveyed and offered until 1818, and when it was offered for sale, sales were meager. This indicated very definitely that as of 1822 emigrants to the west were not attracted to Michigan. The future opening of the Erie Canal would change the attitude of settlers towards Michigan due to the advantages of good transportation. With the millions of acres of Public Domain available at \$1.25 per acre, the price for resale was quite clearly limited. Therefore, the problem in the minds of prospective purchasers would have been how long their investment in the purchase of Area 117 would have been tied up, what profit they anticipated in order to induce them to purchase the tract, and what purchase price would permit them to realize this profit in the period estimated at the retail sales prices foreseeable.

Based on all these considerations, it is the appraiser's conclusion that the market value as a unit of the lands in Area 117, Michigan 1, Indiana, as of March 25, 1822, was 20 cents per acre, or \$822,866.00:

4,114,330 acres @ 20¢. \$822,866.00.



QUALIFICATIONS OF APPRAISER

General Experience

Graduate of University of Michigan. Bachelor of Science in Architectural Engineering.

One year construction work, Starrett Brothers of Illinois.

Three years sales and appraisal of large commercial properties for Starrett Brothers and Starrett Corporation.

Two years building management, Starrett Oklahoma Corporation.

Partner, Klein & Kuhn, Indianapolis. Twenty-six years experience in brokerage, management, and appraising of commercial and industrial properties in Indianapolis and central Indiana.

Have lectured on appraising for Indiana University, School of Business, both regular and extension courses, and before meetings of American Institute of Real Estate Appraisers and the Society of Industrial Realtors.

Appraisal Experience

Analyzed and appraised all properties in Middle West offered to or worked on by Starrett Corporation, 1929-1932.

Appraising in Indianapolis and central Indiana since 1938--improved commercial, industrial, hotel, and apartment properties and vacant industrial and commercial land.

Testified in Federal and State courts as expert witness on appraisals, and appraised on both sides in condemnation suits.

Have appraised for American Can Company, Chrysler Corporation, Indiana National Bank, Shell Oil Company, Corps of Engineers, City of Indianapolis, Ford Motor Company, Department of Justice, American Fletcher National Bank & Trust Company, General Apartments of Indianapolis, Equitable Life Assurance Society of the United States, American States Insurance Company, General Motors Corporation, and others. Work done averages about 40 appraisals per year. Does not do any residential appraising.

Member

Indianapolis Real Estate Board.

National Association of Real Estate Boards.

American Institute of Real Estate Appraisers.

Society of Industrial Realtors.

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